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COMMITTEE FOR ECONOMIC DEVELOPMENT
RESEARCH STUDY

CONTROLLING WORLD TRADE

Cartels and Commodity Agreements

BY

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CONTROLLING WORLD TRADE

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The Trustees of the Committee for Economic Development established the Research and Policy Committee "to initiate studies into the principles of business policy and of public policy which will foster the full contribution by industry and commerce in the postwar period to the attainment of high and secure standards of living for people in all walks of life through maximum employment and high productivity in the domestic economy." (From C.E.D. By-Laws.)

The studies are assigned by the Research Director to qualified scholars, drawn largely from leading universities. Under the by-laws "all research is to be thoroughly objective in character, and the approach in each instance is to be from the standpoint of the general welfare and not from that of any special political or economic group."

The reports present the findings of the authors, who have complete freedom to express their own conclusions. They do not purport to set forth the views of the Trustees, the Research and Policy Committee, the Research Advisory Board, the Research Staff, or the business men affiliated with the C.E D This report on future international trade controls and, in particular, on the place of cartels and commodity agreements, is the thirteenth in the series.

The Research and Policy Committee draws on these studies and other available information in formulating its recommendations as to national policy for the problems examined. Its policy statements are offered as an aid to clearer understanding of steps to be taken to reach and maintain a high level of productive employment and a steadily rising standard of living. The statements are available from the national C.E.D headquarters.

FOREWORD

In the postwar world, what are to be the roles of private cartels and their official counterparts, intergovernmental commodity agreements? Our answers to these questions will be important for our prosperity and peace But, save for a handful of specialists, we do not have the information on which to base our answers. This book is therefore most timely. It is written by a scholar with a rich background of study and firsthand experience in international affairs. Aware of the need to go forward in international cooperation, but aware also of the hurdles, the author indicates what seems feasible now as well as what is ultimately desirable.

While this book is concerned specifically with commodity controls, other publications of the Committee for Economic Development deal with the broader problems of international economic relations These include *International Trade and Domestic Employment*, a research staff report by Calvin B. Hoover; *World Politics Faces Economics*, a supplementary paper on Russian-American relations by Harold D. Lasswell; and *International Trade, Foreign Investment and Domestic Employment, including Bretton Woods Proposals*, a policy statement by the Research and Policy Committee.

The CED research program, of which the study of international economic relations is a part, is described on pages 273–278.

THEODORE O. YNTEMA
Research Director

PREFACE

Although this report is presented in two parts, one concerned with private business agreements (cartels) and the other with intergovernmental commodity agreements, the distinction between them can easily be overemphasized. Cartel arrangements permit of varying kinds and degrees of governmental participation and tend to shade, as in the case of tin and rubber, into commodity agreements. Both operate largely through export quotas with or without attendant controls of price, production, and stocks. Both tend to restrict the total volume of international trade and a free choice by producers and dealers of the trade channels through which they buy and sell. Commodity agreements, of course, permit of an upward as well as a downward adjustment of exports and production but so also do cartels—and usually within a ceiling that is demonstrably lower than would be attained in the absence of control. The fact that commodity agreements are negotiated by governments is no guarantee that the interests involved are very different from those concerned with cartel formation. Intergovernmental agreements permit of import-country representation, and it is along these lines that changes in international commodity controls, away from an exclusive concern with producer interests, are to be expected. In many prewar commodity agreements, however, producer interests were as much to the fore as in the typical cartel.

The distinction has been more sharply drawn in the United States than elsewhere primarily because (1) our peacetime commercial policy has been concerned almost exclusively with tariff questions, (2) the separation between business and government is relatively sharp, and (3) our participation in commodity agreements has been limited to agricultural com-

modities, the control of which must of necessity be strictly governmental.

However, in almost any European country, commercial policy includes a wide repertoire of devices for protecting the domestic market, assuring the country's exchange position, and advancing her economic interests and the interests of her nationals abroad. Furthermore, in pursuing these objectives, government and business cooperate much more closely than is customary here. Both cartels and commodity agreements tend to be viewed as instrumentalities of commercial policy, and, in both, business representatives and government officials may participate. Although there is a wide variation, even in foreign experience, between a purely private cartel arrangement in, say, a patented product, and purely governmental controls for many agricultural products, the dividing line is not so sharp abroad, and the behavior of cartels has not been conspicuously different from that of commodity agreements.

This divergence between American and other experience with cartels and commodity agreements must be borne in mind in the ensuing discussion. There is a school of thought in the United States that abhors cartels as private treaties restrictive of trade but embraces commodity agreements as intergovernmental arrangements inevitably serving the public interest. Cartels may, and usually do, restrict trade but so do commodity agreements—and much more effectively. Nor is the range of interests served necessarily very different.

The general line of policy defended in this report is that, when international controls relating to a commodity or industry are demonstrably necessary, they should be intergovernmental in character. It does not follow that intergovernmental commodity agreements should be numerous or easily justifiable on grounds of public interest. If the agreement, moreover, lies outside the field of agriculture, it is likely to involve a type of governmental relation to industry with which the United States has as yet had little experience

The treatment of international private and public agreements in Parts I and II of this report is not quite symmetrical. The discussion of cartels is meant to apply to private agreements in both raw materials and manufactured products. Part II on commodity agreements, however, treats these as an aspect of public policy toward raw material problems. No manufacturing industry has as yet been subject to regulation by intergovernmental agreement—though, if cartels were to be outlawed, a case might be made, under certain circumstances, for such regulation.

It will probably also be noted that the recommendations in the cartel part of this report are made with greater firmness than the recommendations on commodity agreements. This reflects a lack of sureness that the author has not been able to overcome with respect to his conclusions on intergovernmental controls. The underlying difficulty has to do with the degree to which public policy in this field can be expected to become anything more than a reflection of the activities of interested pressure groups. If he could join those who regard government as the impartial arbiter of the public interest, the author's enthusiasm for intergovernmental commodity agreements might be more than lukewarm. On the other hand, if he could sympathize with those who see government as acting solely in the interests of organized producers, he would gladly join in denouncing commodity agreements as nothing but an insidious form of cartel.

EDWARD S. MASON.

CAMBRIDGE, MASS.,
June, 1946.

ACKNOWLEDGMENTS

THIS study has received the benefit of suggestion and criticism from many sources. To Washington colleagues who participated in the work of the Interdepartmental Committee on Cartels and Private Monopolies the author's debt will be obvious. The Food Research Institute of Stanford University has put under obligation everyone who writes, or will write, on the subject of intergovernmental commodity arrangements. The author recognizes a special debt to the director of the Institute, Joseph S. Davis.

CONTENTS

PART I

International Business Cartels

SUMMARY OF RECOMMENDATIONS

POLICY concerning international business agreements is and must be a small segment of a broader policy concerning international economic relations. The prospects within this broader area in turn depend primarily upon the kind of peace and security settlement that is possible after the war and upon the success of the principal industrial countries of the world in maintaining domestic employment.

In order to deal with cartel policy, it has been necessary, therefore, to start with certain assumptions. Specifically, it has been assumed, first, that the peace will have substance and that international economic relations will not be dominated by preparations for the next war, second, that a considerable measure of success will attend the attempts of the United States and other industrial countries to maintain high levels of employment; and, third, that the kind of international economic policy outlined in the CED statement on international trade will prove in large part acceptable to the principal trading nations of the world.[1] If these assumptions are not borne out, it is possible that our foreign economic policy, including cartel policy, will have to be developed along quite different lines from those here proposed.

The aspects of international business agreements that raise questions of public policy are chiefly those involving restrictions on the flow of goods in foreign trade. Such restrictions are alleged to have hampered our war preparation, but their most important effect by far has been to reduce the peacetime advantages of foreign trade. In any case, security interests present few problems that cannot be handled by a policy toward international business agreements adapted to our normal commercial interests.

[1] The Research Committee of the Committee for Economic Development, *International Trade, Foreign Investment and Domestic Employment*, May, 1945.

It is possible to approach such a policy through cooperation with other governments and through unilateral action. Certain of our interests, such as the avoidance of high cartel prices on imported commodities not produced in the United States, can hardly be achieved without intergovernmental cooperation. The achievement of other interests would be very much facilitated by such cooperation.

Cartel policy by international agreement might take the form of either regulating or curbing restrictive business agreements in foreign trade. The main arguments for regulation are that international control of a commodity in foreign trade is sometimes necessary, and that, in the absence of common action, practices more restrictive of international trade than those inherent in the control scheme are likely to be adopted. The conditions under which international commodity controls appear to be desirable are discussed in Part II; it is there argued that intergovernmental agreement, rather than private business agreement under loose government supervision, is to be favored. Calling cartels commodity agreements does not, however, solve our problem; if the controls imposed are to bear a reasonable relation to the economic requirements of the situation, very strict conditions for their administration will have to be observed.

On the assumption that this can and will be done, a policy of curbing cartels by international agreement is recommended.[1] The United States should propose an international convention whereby the signatory powers would agree:

1. To prevent, by whatever means are appropriate to the laws and institutions of the several countries, the participation of their nationals in international business agreements that fix prices, limit output or exports, allocate markets or otherwise restrain the flow of goods in international trade. This convention would not apply to the organization of the exporters

[1] The relation of this recommendation to the cartel proposals published by the government of the United States following the Anglo-American financial and commercial policy discussions is considered in Chap. II

or importers of a single country in export or import associations.

2. To require the registration by their nationals of the terms of their participation in international business agreements of an enduring character and of such information on ownership of foreign assets or foreign affiliate relationships as may be requested by an International Business Office to be established.

3. To establish, as an adjunct of an International Commercial Policy Organization, an International Business Office to study, on the basis of information supplied by the participating governments, business practices that tend to restrict international trade and to recommend remedial action to the signatory states

4. To exchange on a nonrestrictive basis industrial techniques developed in government-supported research institutions, and patents and processes acquired, as a condition of the peace settlement, from enemy countries

If such a convention were accepted, the United States would be required to implement by legislation the registration provisions as well as provisions for creation of an International Business Office and for intergovernmental exchange of industrial techniques. The present antitrust laws are presumably adequate to implement the first provision.

* * * * * *

Whatever measure of success may attend the proposal of an international convention for the curbing of cartel practices, no change is recommended for the present in our own antitrust laws. Although their application to American participation in various kinds of foreign-trade agreements is uncertain, pending current and prospective adjudication, such uncertainty is not likely to be removed by "clarifying" legislation. However, in applying antitrust laws to agreements in foreign trade, not only the enforcement agencies but the courts should take account of the kind of world trade organization in which American export firms and associations compete. Regardless of the

success of international efforts to reduce trade barriers, it must be expected that the postwar economy will continue to be characterized by state export and import monopolies, state-encouraged import and export associations and domestic cartels, with or without state participation. If such international efforts meet with only slight success, the regulation of international trade by cartels and producer-oriented commodity agreements may be extensive.

Under these circumstances a reasonable interpretation of the antitrust acts would recognize:

1. That export associations have an important function to perform, and that self-limiting of competition, as among members in their export trade, is sometimes necessary to its performance.

2. That the participation of American firms, and particularly their foreign subsidiaries, in restrictive agreements limited to a foreign area is sometimes necessary to American exports or to business activity abroad and, in any case, is properly subject to the jurisdiction of the government or governments of the area in question.

It seems probable that the antitrust acts will be so interpreted as to permit activities of the sort described above. A more debatable point concerns participation of American export firms and associations in international agreements that limit competition in third countries or divide world markets. Although participation in such agreements may frequently increase profits per dollar of sales, it is not a requisite to meeting competition and, in general, tends to lessen the total volume of exports. Since the interest of the United States is in a large volume of profitable exports rather than in maximum profit per unit of export business, American participation in such agreements should be discouraged.

American participation in international business agreements restricting either imports into the United States or the exports of American firms outside the agreement is clearly illegal. There appear to be no interests of the United States

broader than the preservation of competition that can effectively be served by participation in such agreements; consequently, no convincing case can be advanced for a change in antitrust standards as applied to international business agreements of this sort.

The language of the antitrust laws is extremely general, and the business agreements that fall within their scope are of infinite complexity. In these circumstances, the enforcement agencies have not only large discretion but large responsibilities in selecting the cases to be brought, and the courts have broad discretion and responsibility in their adjudication. A reasonable line of policy toward American participation in international business agreements lies within the meaning of the antitrust laws, and, unless or until it becomes clear that either such a line is not being pursued or the postwar organization of world trade is so very different from what has gone before that present legislative standards are inadequate, no change in the antitrust acts as applied to international business agreements is recommended.

* * * * * *

International patents and processes agreements have frequently been used to consummate schemes of market regulation that extend considerably beyond the patent rights included in the agreement. Attempts to enlarge patent monopolies by restrictive agreement are of course illegal, and there is nothing in the international character of a patents and processes agreement that would justify practices found illegal in domestic trade. It is possible, moreover, for countries whose nationals participate in such agreements, to lessen the restrictive effects by legislation reducing the scope of the patent rights conveyed. Since, however, the modification of patent rights is essentially a domestic problem, no recommendation on this subject is contained in this report. It is sufficient to note that the international aspects of this problem appear in no way appreciably to affect the merits or demerits of domestic patent reform.

The security aspects of restrictive business agreements may be divided into those that bear on American preparations for war and those that bear on the question of military aggression.

As to the former, it is alleged that American participation in restrictive international business agreements hampered our war production and aid to our allies and facilitated enemy espionage and fifth-column activities in the United States. It is argued later that these consequences have been greatly exaggerated. In any case, the convention and policies suggested above would, of course, cover agreements affecting military items as well as other products. Insofar as restrictions on production and trade are attached to the legitimate exchange of legitimate patent rights, they would remain untouched, though the scope of such rights, as indicated above, is capable of reduction by legislation. It is the opinion of the author that the advantages of technological interchange have far outweighed the disadvantages of restrictions in use of technology, even in the frequently illegal international patents and processes agreements of the past. It is possible, however to preserve these advantages while reducing markedly the extent of the restrictions.

Ordinary commercial espionage, subversion and sabotage may be facilitated by almost any kind of alien commercial connection in this country and certainly by the maintenance of branch plants and subsidiary firms. Such activities have no special connection with international business agreements, restrictive or other. Patents and processes agreements, however, may lend themselves to espionage as regards the design of military items and information on the number of units produced. It seems desirable that the Army and Navy pay closer attention than they have in the past to the terms of foreign patents and processes agreements into which their contractors may enter. No new legislation appears to be necessary to safeguard secret patents or processes of a military nature.

The argument that restrictive business agreements both domestic and international have a close connection with

military aggression is sometimes, with engaging simplicity, stated as follows: the cartels brought Hitler to power and Hitler made war; therefore, cartels were *a* if not *the* source of German aggression.

There is no doubt truth in the contention that Nazi Germany used the cartel connections of its nationals in certain instances to further German war aims, just as it used all other foreign connections of its nationals, but the number of cases in which the activities of German cartel participants cannot be completely explained on an ordinary profit basis is extremely small. It will probably be wise, as a part of the peace settlement, to go as far as possible in breaking the international cartel connections of German firms, but principally for reasons of commercial policy and not security. It will certainly be advisable for the Allied governments to acquire and to exchange fully with one another the results of German technological development.

Any durable policy toward the cartel connections of German firms, however, will be dependent on the measure of success that attends the adoption of cartel policy by international agreement. In the long run the Allies will find it impossible to impose on a defeated enemy a higher standard of commercial morality than they are willing themselves to practice.

* * * * * *

The period of military government will permit the Allies—theoretically at least—to pursue a certain policy toward the internal organization of industrial Germany. Even if an antitrust policy were considered desirable, however, the zonal occupation of Germany, the almost inevitable swing toward government ownership, the tendency of military government to use established institutions—in which domestic cartels must be classed—and the recalcitrance of any population to reforms imposed from outside by an enemy cast doubts upon its success. It must be emphasized that, although the domestic cartel was an important type of business organization in the

socio-political environment that produced Hitler, and although the structure of the domestic cartel was readily adapted as an internal instrument of control in Nazi Germany, there is no reason whatsoever to believe that the existence of any imaginable alternative type of business organization would, in that particular context, have led to a different result. Nor is there any reason to believe that the application, from outside, of antitrust measures will make any appreciable difference in the social, economic and political structure of postwar Germany.

I. INTERNATIONAL BUSINESS AGREEMENTS: STATEMENT OF THE PROBLEM

A INCREASE IN THE NUMBER AND IMPORTANCE OF INTERNATIONAL CARTEL AGREEMENTS, 1920–1940

ALTHOUGH international business agreements were commonly encountered before the First World War, it was in the period 1920–1940 that they increased in number, changed in character and involved American participation to an extent requiring a reformulation of public policy.

A very large number of international business agreements, regulating and limiting foreign trade, grew out of the economic dislocations of the First World War. War-created excess capacity, notably in the heavy industries, led to agreements designed to protect domestic markets and to limit export competition. The numerous agreements that together made up the European steel cartel were spawned by such excess capacity. The territorial division of business properties in the Balkanization of Central Europe on occasion substituted international cartels for what were formerly domestic cartels or combines. The industrial concentration and business cooperation incident to military production in all the warring countries persisted in postwar Europe as it did in the United States.

A special set of international business agreements grew out of the vesting of enemy properties in the various Alien Property Custodians during the war period. American and British firms acquiring the properties frequently lacked the technological experience or foreign outlets of the German parent firms; they entered into business agreements with them and thereby substituted an American-German or a British-German cartel relationship for a German parent-subsidiary relationship. The well-known agreements between the Sterling

Products Corporation and the predecessors of I. G. Farben were of this sort.

After the war, Germany in particular, but other European countries as well, witnessed an acceleration in the process of industrial concentration that affected exports as well as production for the domestic market and thereby facilitated international agreement by export interests. Postwar inflation wiped out many a small competitor, and the ensuing period of lavish foreign lending, particularly by the United States, favored the growth of firms large enough to borrow in foreign capital markets. Hitler's Aryanization policy, the consolidation of cartels, and compulsory cartelization, together with the expansion of combines incident to war expenditures of the 1930's, hastened both industrial concentration and the monopolization of export trade.

Even in England, of all European countries the slowest to be weaned away from competition, the changes since 1932 in the organization of both domestic and export industries have been remarkable Impelled by a revolutionary shift in tariff policy, British industrialists, through their trade and export associations, have gone far toward substituting negotiation for competition in the determination of output and prices, both domestic and export.[1]

[1] The best description of the truly remarkable limitation of competition in Britain since 1932 is still the pamphlet by Ben W Lewis, *Price and Production Control in British Industry*, University of Chicago Press, Chicago, 1937. *Cf* p 4

The tariff provided the essential condition, the long-continued depression and the government's defense program have furnished the immediate motives By the end of the depressed 'twenties, British industrialists were tired of stealing each others' businesses by ruining their own, and, like industrialists everywhere, they saw price cutting and other incidents of the depression only as competitive excesses which could and should be curbed by simple rules and restraints The British government, feeling keenly the plight of unemployed capital and labor, aware of the growth of nationalism throughout the world, and face to face with the fact that preparedness for modern war means continuous and complete mobilization of industry even during times of peace, has found it essential to its program that British industries be organized as units and that each be represented by an association empowered to speak for and to commit each and all its members.

Industrial self-regulation in the domestic market makes easier, if not inevitable, self-regulation in the export market. If firms agree not to compete at home, they are unlikely to compete with each other for foreign sales. Moreover, organization of the home market, insofar as it facilitates the formation of export associations, establishes the necessary mechanism for an international agreement that will undertake regulation on a broader scale. The reverse operation, though less frequent, also sometimes occurs: the organization of producers for export may modify the degree of competition among them in the domestic market If an attempt is made, as in the United States, to differentiate between the legality of business associations for export and those for domestic markets only, serious complications are bound to ensue. The fact is, the process of concentration that has advanced apace in all industrial countries since the end of the First World War is directly related to the increase in numbers and effectiveness of international business agreements.

Commercial policies pursued in the period between the wars have indirectly added fresh stimulus to such agreements. Tariffs, exchange restrictions and other trade barriers, in making exports more difficult, have encouraged the establishment of branch plants and affiliates in foreign territory. Many American firms, which under freer trade conditions would have exported, have responded to trade restrictions by establishing producing subsidiaries abroad. These subsidiaries, in turn, operating in jurisdictions in which both domestic and international cartel participation was the rule, have entered frequently into international business agreements. Trade barriers have also encouraged technical data agreements and patent licensing. Unable to export goods, firms have exported technical know-how and have licensed patents with the various restrictions permitted by local law.

Although international business agreements have been far more common among nationals of European countries than elsewhere in the world, American participation in such agree-

ments increased enormously after the First World War. The Webb-Pomerene law of 1918 legalized export associations. Whether it was the intention of the law to permit these associations to enter into international market-regulating agreements, a number of them did. Extensive participation of American firms in technical data agreements dates from the 1920's. American subsidiaries and affiliates abroad have entered freely into foreign domestic and international cartel arrangements and, in some cases, would have found it difficult or impossible to continue in business had they abstained. Concentration in the domestic market, which continued in the United States as in other countries in the years between wars, undoubtedly gave impetus to international business agreements.

B. THE PARTICIPATION OF GOVERNMENTS IN INTERNATIONAL BUSINESS AGREEMENTS

To date, little has been done by governments, except in the United States, to prevent or in any way obstruct their nationals' participation in international business agreements that restrict and regulate competition in the export trade. On the contrary, governments have joined in directly, as cartel members and supporters of their national firms, and indirectly, through the implementation of commercial policies that stimulated international business understandings. Government-owned potash properties were members of the international potash cartel. French and German government aluminum firms were a part of the international aluminum cartel. The mercury properties of the Spanish and Italian governments marketed their product through a common selling agency and shared the export market in agreed proportions. The Soviet government has been party to a number of international cartels.[1] Governments participating in inter-

[1] Although considerable obscurity surrounds the subject of Russian cartel participation, the available evidence indicates that, through her export trusts and state trading companies, Russia has taken part in at least three inter-

national business agreements as proprietors have behaved precisely as private proprietors, exhibiting no less keen an interest in a high price and an assured quota for their product on the world market

Governments have similarly supported the cartel operations of their nationals. Recalcitrant outside firms have been forced into the cartel, cartel regulations have been policed, and, in negotiations with foreign members, governments have upheld the claims of their nationals for a larger quota or more favorable terms. In the division of world markets by negotiation, the assistance of the state may be far more useful than in the conquest of world markets by competition. By making foreign trade an instrument as well as a concern of foreign policy, the power and prestige of the state are used in trade negotiations to reinforce the competitive strength of private firms The adherence of governments, moreover, tends to make international business agreements stronger and more durable than mere private agreements.

Many governments, in other words, have treated the cartel participation of their nationals as one of numerous administrative devices to implement commercial policy. Quantitative import controls may be exercised by the assignment of import quotas to cartel participants, a method frequently applied in the world oil trade. Government support of its nationals in cartel negotiations for export quotas is a recognized method

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national control schemes that might be classed as commodity agreements and eight international cartel arrangements

Commodity agreements.	lumber, wheat, sugar.
Cartel agreements	matches, platinum and platinum metals, asbestos, oil, electric lamps, phosphates, potash, soda ash.

Although the structure of Russian foreign trade has probably subjected her to a loss from high cartel prices on imports greater than her gains from higher prices on exports made possible by cartel participation, and although reports emanating from Russia indicate an anticartel attitude in the postwar period, it may be conjectured that, if international cartel arrangements continue to flourish, the Soviet government will show no hesitation in cooperating. In fact, representatives of the Soviet government have shown themselves as adept in negotiating for cartel advantages as in other aspects of international bargaining.

of trade promotion. Such activity brings about an interpenetration of government and business that is foreign to the experience of the United States. American business has frequently envied the assistance its foreign competitors expect and receive from government. It has its price. One of the important considerations to be weighed carefully in the formulation of policy toward cartels is whether such assistance as government might render to American business in international negotiations would be worth the price.

C THE STAGE OF PROCESSING IN RELATION TO GOVERNMENT PARTICIPATION IN INTERNATIONAL CONTROL SCHEMES

The problems in the field of commercial policy posed by international business agreements may be viewed more clearly against the broader problem of international commodity controls, public and private. The nature of these controls and, in particular, the relation of government to business in their negotiation and administration tend to vary with the processing stage of the commodity controlled. It is useful to distinguish between (1) industrial raw materials and foodstuffs, (2) standard processed and semi-fabricated products and (3) highly fabricated, specialized and, frequently, patented products.

International commodity controls for the first group have covered such materials as rubber, tin, oil, kapok, sulphur, asbestos, tea, cocoa, coffee, quebracho, quinine, nitrates, aluminum, copper, sugar, lumber, phosphates, wheat and potash. Certain of the controls in this range of products, for example, for coffee and wheat, have been governmental from the start. Others, for example, for copper and phosphates, have continued as purely private arrangements.

For many of these items, however, international control systems, having begun as private cartels, have become, in the course of time, commodity agreements with more or less governmental participation. The trend is very clearly in this

direction, and we may expect increasingly in the postwar period to see international commodity controls in raw materials take predominantly the form of commodity agreements. In the case of products of worker-owner industries, including all purely agricultural products, this is necessarily so. But even for commodities such as most minerals, whose production is highly concentrated, international controls, where they exist, may eventually be governmental. If copper, for example, is internationally controlled in the postwar period, it may well be by intergovernmental agreement.

Numerous international controls have already been established for the second group, standard manufactured and semimanufactured products. In this category belong cement, steel rails and other steel products, tin plate, cables, dyes, paper, linoleum, plate glass and many others. The international arrangements for these have been predominantly private, although governments have been increasingly active in coercing recalcitrant outsiders and in negotiating and policing the agreements. International business arrangements, covering both raw materials and standard manufactured products, have shown a tendency to break down without governmental support.

The third group embraces highly processed and specialized products and is most extensively found in the chemical, electrical products, pharmaceutical, and optical glass industries In these fields, controls frequently depend on patents and trademarks; the highly publicized international technical data agreements fall mainly in this group. This type of control is almost exclusively private. Although governments have shown an awakening interest in the terms of these agreements, government assistance in their negotiation and administration is unusual and unnecessary to their success.

The extent of governmental participation in international commodity controls tends to vary with the stage of processing involved, but the historical trend is toward increased participation at all stages. The proper scope and character of inter-

governmental commodity controls is discussed elsewhere; it is only necessary here to emphasize that in any discussion among governments on the proper postwar role of international business agreements the policy issues to be raised are not likely to be concerned primarily with the unauthorized, secret and unregulated cartel agreements. Even without an intergovernmental agreement on cartel policy, government participation in some form may be assumed for almost any important postwar international marketing arrangement, and even international technical data agreements, without significant marketing implications, may well be subject to scrutiny by governments. The real issue demanding international action is whether international business marketing arrangements shall be legitimized under some form of governmental control, or whether the scope of such arrangements is to be curtailed.

D CARTELS AS TRADE BARRIERS

The two main questions that confront commercial policy as it relates to international business agreements involve trade barriers and private trading.

The provisions of an international cartel agreement frequently set limitations on the trade of the participating firms. In so doing, they may also limit, directly or indirectly, the business of firms not parties to the agreement. The nature of the trade barrier, however, consists principally in restricting a participating firm's freedom to market its goods. Its exports must sell at a fixed price or in a particular market or only within certain quota limitations. Such arrangements undoubtedly affect the physical volume of world trade, but more decisively they affect its channels. A typical cartel agreement will protect the domestic market of each participant from the others' competition and will allocate the remaining markets of the world among the various national groups. The sales of American participants will be limited to the United States or

to North America or to the western hemisphere or to a broader sphere depending on their relative strength and ambition.

Although in a purely private agreement these limitations on a participating firm's freedom of action are self-imposed, the trend, as indicated above, runs strongly toward governmental direction and enforcement. If firms do business through cartels in the postwar period, it will be within an increasingly important set of governmental restrictions. Thus in any determination of cartel policy by international agreement, the issue of private trading as well as of trade barriers is involved.

The trade of outsiders may be hampered by cartel monopolization of distribution channels, by various predatory practices or by state intervention in the interests of cartel participants. On the other hand, the "price umbrella" that cartels frequently hold over the market may, on occasion, work decidedly to the advantage of outsiders. The high prices of electric lamps maintained by the very comprehensive and restrictive Phoebus cartel had already led, by the outbreak of the recent war, to a rapid growth of outsider production in cartel territory.

When international market-regulating business agreements are effective, however, there is no doubt that they reduce the total volume of world trade. Although an extensive business literature denies this, emphasizing the market-stabilizing functions of industrial self-government, with its "adjustment of supply to demand," the hampering effects of such schemes on production are too well established to need elaboration.[1]

[1] The leading exponent of the view that cartels expand and stabilize international trade is probably Lord McGowan of Imperial Chemical Industries In a speech in the House of Lords, July 5, 1944, Lord McGowan said, in part,

> The purpose of those [international cartel] agreements is, in the main, to regulate but not to abolish competition. They can help to stabilize prices at a reasonable level . . . They can lead to a rapid improvement in technique and a reduction in costs, which in turn, with enlightened administration of industry, can provide the basis of lower prices to consumers. They can spread the benefits

The real arguments for international cartelization under government auspices are (1) that, in the absence of international agreements regulating markets, governments will act unilaterally to protect domestic markets and export interests, with restrictive effects more harmful to international trade than those of the agreements; and (2) that, in certain economic situations characterized by chronic overproduction, temporary excess capacity or price instability, restriction of trade through international agreement is expedient.

It must be emphasized that neither of these arguments is a good argument for unregulated private cartels. It should not be for private business interests to determine when an international business agreement is needed to avoid more serious government restrictions, or when a market-regulation plan is desirable to obviate wasteful competition or uneconomic price instability. The issue presented for intergovernmental discussion will not, therefore, be whether to allow or to forbid private international cartel arrangements. The issue, as stated above, involves a choice between authorizing cartel agreements under some type of government supervision or adopting a policy of curbing and limiting cartel arrangements.

E THE MONOPOLY EFFECTS OF CARTELS AND COMBINES

Undesirable restraint of foreign trade can, of course, be effected not only by business agreement but also by controls based on ownership and business affiliation. Combines, as well as cartels, can be international. A combine is a business organization in which a number of legally distinct business

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of inventions from one country to another by exchanging research results, by the cross-licensing of patents and by the provision of the important know-how in the working of these patents They can provide a medium for the orderly expansion of world trade and can make a substantial contribution—and this is important—to the difficult problems of the postwar readjustment of production in countries greatly affected by the war They can also assist in providing much greater stability of employment

units (subsidiaries or affiliates) are subject to unified direction. If the basis of the combination is ownership, the top direction may come from a holding company, a trust or a parent company. The size and character of a combine's operation in international trade may approximate that of an international cartel. Certainly International Nickel's coverage of world markets is as pervasive as that of any cartel. To deal with the monopoly aspects of combines on an international level obviously presents unusual difficulties, which, however, do not concern us here. It is sufficient to recognize that barriers to both foreign and domestic trade may be as effectively raised by combines as by cartels.

We are here using the term "private trade barrier" to mean the effects resulting from any serious degree of monopoly or restraint of trade. When the restraint is on foreign trade, the distribution of the effects as among countries raises certain questions dealt with in the next section In the domestic economy, since the allocation of resources among uses or industries is distorted, the efficiency of employed resources may be reduced, and the income effects may lessen the total volume of employment. In general, the political vulnerability of large-scale enterprise, including cartels and combines, tends to jeopardize the stability of capitalist institutions.

Substantial restraint of trade, through cartelization or combination, produces in the industry affected a smaller volume of output and employment of resources than would obtain under freer conditions of competition. These effects, however, are not additive for the economy as a whole. Resources not employed because of restraints in one industry are available for employment elsewhere. Consequently, one cannot add together the output deficits in industries affected by monopoly and thus determine the magnitude of the output deficit, due to monopoly, in the economy as a whole. If resources displaced by monopoly are employed elsewhere, the over-all effect is an underemployment in the monopolized sectors and an overemployment in the competitive, as compared to the

distribution of resources determined by unrestrained competition.

Displaced resources, however, may not necessarily be utilized elsewhere. The effect of a monopoly on total labor utilization depends primarily on its effects on savings in relation to available investment opportunities. Monopoly—and here we are discussing business rather than labor or agricultural monopoly—tends to alter the distribution of income in favor of profits and thereby, in the absence of compensatory taxation, to increase the proportion of total income saved. If investment opportunities are adequate to absorb the increased volume of savings, monopolization will have no effect on total use of resources. If such opportunities are deficient, a savings-investment difficulty may well cut down employment

That substantial restraints of trade can decrease the efficiency of employed resources may be illustrated by the indifference that monopolized industry allegedly displays toward technical improvement.[1] In the case of production costs, monopoly affects not so much the calculus of business decision as the spirit in which this calculus is approached. Considerations involved in the replacement of a machine, the introduction of a new technique or an organizational reform, are the same for a monopolist as for a competitor. A machine, for example, should be replaced when the total unit costs of operating with a new one are less than the prime unit costs of operating with the old one, and this calculation does not differ as between a monopolist and a competitor. Behind the protection of a monopoly position, however, the will to reduce costs may weaken. The consequences should then be apparent in the inefficiency and technological backwardness of industries enjoying such protection. Although it would be difficult to demonstrate this view statistically, it is probably

[1] Efficiency here means productivity per man, per acre, per machine, etc, operating with a *given quantity* of auxiliary resources. It does not mean productivity as affected by *different quantities* of auxiliary resources.

a justifiable inference from general observation of industrial behavior.[1]

When attention is focused on sales revenue, the existence of monopoly introduces considerations definitely unfavorable to technical improvement. To preserve total revenue from sales, firms enjoying a monopoly position are said to have suppressed products that would have a longer life or promise to sell for a lower price than those currently produced. It is alleged in the complaint against the Diamond Match Company and others that the patents on an "everlasting" or "repeating" match were not utilized because this match was regarded as "a distinct danger to the American match industry."[2] It has been cogently argued that the introduction of fluorescent lighting was seriously hampered, partly because of pressure from electric utility interests who anticipated lower consumption of electric current.[3] It has been rumored that rubber interests united in the rubber cartel threatened to withhold supplies from American tire manufacturers unless they ceased research on synthetic rubber.

[1] The technological backwardness of certain basic British industries, notably textiles, coal and steel, and the supposed technological backwardness of British industry in general, are the text of frequent sermons, both here and in England, on the pernicious effects of monopoly The British textile industry, however, showed a low ouput per manhour long before it ever enjoyed the benefits of monopoly in the form of industrial self-government Active discussion of the obsolescence of British steel installations goes back at least 60 years, and the backwardness of the coal industry is a perennial topic Furthermore, some of the most monopolistic of British industries, notably chemicals, appear to be highly efficient by international comparisons.

Reasons for the differences in manhour productivity in a given industry in different countries and for differences in the rate of increase in productivity are obscure, and it is not entirely clear that the presence or absence of monopoly has much to do with it. It is probably truer to say that a limitation of competition in a given industry is favored because of technological backwardness than to say that such a limitation is the cause of the industry's technical backwardness.

[2] Complaint filed May 1, 1944, Southern District of New York *cf.*, p. 49.

[3] Hearings before Committee on Patents, U S. Senate, 77th Congress, 2d Session, 1942, Part 9, pp 4, 753–780 Testimony of John W Walker, Attorney, Antitrust Division. This committee will henceforth be referred to as the Bone Committee.

Whatever the merits of these particular allegations, there can be no doubt that a monopoly position provides inducement for the withholding of new products that would affect revenue from sales—a consideration of little interest to a firm in a competitive position.

F INTERNATIONAL ASPECTS OF MONOPOLY

International cartels and combines have the same over-all effects as the domestic variety, but the way these effects are distributed as among countries, together with certain political and economic differences affecting their operations, raises special questions

If the whole of the output of an industry is consumed at home and none of the product in question is imported, the magnitude of consumer interest in a national welfare calculus will approximately equal the magnitude of producer interest When exports and imports are involved, however, a country may have predominantly a producer or consumer interest in a commodity or group of commodities. The cartelization of an export commodity may raise its price, but it is possible that the increase in consumer cost will be borne entirely or largely by foreign consumers. The cost to a foreign consumer, as is well known, is his own "lookout." An intergovernmental commodity agreement may, of course, have the same effect, hence the current demand for consumer representation in these agreements. Such representation is unlikely to take place in an international business cartel.

If cartelization is practicable chiefly for manufactures, a group of industrial countries may find it feasible to export at cartel-controlled prices and to import raw materials and foodstuffs at prices determined on competitive world markets, thus improving their terms of trade. The industrial countries of Western Europe—Germany, England, Belgium and others —were in somewhat this position before the war. The difficult balance-of-payments problems confronting these countries in the postwar period will make favorable terms of trade even

more desirable. Effective international commodity controls in the foodstuffs and raw materials chiefly imported by these countries would worsen their terms of trade and might intensify the demand for cartel control of the prices of their exports.

Division of markets and cartel quotas serve to protect domestic markets and to lessen competition among cartel participants for third-country markets. Such barriers to trade are frowned on domestically, but, as protective tariffs indicate, foreign trade is considered a different category. As a protective device, a cartel arrangement is frequently a substitute for, or a supplement to, a tariff Since international negotiation, frequently multilateral, is involved, the trade as among the participating countries or between them and others, in a commodity or group of commodities, is regulated by agreement. If governments participate in or supervise the negotiation, the resulting agreement may enjoy the protective coloration of the public interest.

There are those to whom an international agreement itself means progress, regardless of what is agreed. One of the principal arguments for intergovernmental commodity agreements is that, as against unilaterally imposed tariffs, export bounties and other impediments to trade, they would introduce a common policy representing a reconciliation of conflicting national interests. The same argument can be advanced for appropriately regulated international cartel agreements

In the domestic market, the rules of the game are determined, by and large, by one authority, and all trading units are governed by these rules In the international market, however, a multiplicity of trading units and of rules prevails State monopolies, cartels, and import and export associations exist side by side with private traders and play the game from different rule books. Although corresponding analogies may be said to exist in the domestic market, actually the situation that confronts the private trader abroad is substantially different. It can be argued, therefore, that the pros and cons

of international cartelization must also be different from domestic monopoly.

Finally, international trade has become a strategic phase of international relations, in which arise questions of national power and prestige, of war and peace. Although it is by no means clear that, on balance, a division of world trade by business agreement is any more destructive of international harmony than a division of world trade by unregulated competition, international relations may be markedly disturbed by certain cartel and combine practices. Monopolistic exploitation of the foreigner is viewed more favorably at home than the exploitation of domestic consumers, but it may cause more dislocation in the end by provoking retaliation and creating international tension. Furthermore, although it is true that foreign-trade connections will continue to be used for political ends as long as foreign trade continues, cartel connections offer certain opportunities for state manipulation not shared by other business forms.

These are the reasons why monopoly in foreign trade presents particular problems that differ from those in the domestic market, even though the over-all economic effects of both are much the same.

G. THE RELATIVE IMPORTANCE OF THE CARTEL PROBLEM AND CARTEL POLICY

Useful as it would be to have some quantitative measure of the effect of monopolistic restraints on total national output or on the volume of international trade, any precise notion of these magnitudes is clearly not to be had. It has been recently estimated that perhaps 40 to 50 per cent of the total volume of world trade is subject to some degree of cartel control,[1] but

[1] Frederick Haussmann and Daniel Ahearn, "International Cartels and World Trade, An Exploratory Estimate," *Thought* (Fordham University Quarterly), Vol XIX, No 74 (September, 1944), p 434

Taking into account the inaccuracy of the estimates due to the lack of exact statistics, we come to the basic conclusion that 42 per cent of world trade between 1929 and 1937 were cartelized or influenced by loosely knit associations or conferences This is a minimum estimate

this does not tell us whether world trade would have been greater in the absence of these controls and, if so, by how much.

In default of measurement it is only possible to venture a judgment, more or less informed, on the quantitative significance of international cartels and combines. To be operative, such a judgment must be related to the question of how far trade and output (for the world or for the United States) would be expanded by a practical anticartel policy—either unilateral or intergovernmental—as against trade and output governed by the most probable alternative policy. How significant a change would take place in channels of trade? What would be the magnitude of the effect on domestic competition? How significantly would international relations be improved, if at all, by such a policy?

International negotiations demand that a judgment of this sort be made, since the United States, like every other country, can attain certain objectives only at the expense of others. Specifically, how much of the rest of our foreign economic program are we willing to give up to get a measure of agreement on an international cartel program? If the nations of the world were of a like mind with respect to proper policy on cartels, and would adhere with equal fervor to such a policy, no such question would arise; unfortunately this is not the case.

In the absence of measurability, the cartel problem can be made to loom very large. In a recent book by Wendell Berge, Chief of the Antitrust Division, U. S Department of Justice, it looms very large indeed.[1]

> Cartels are in essence private governments which threaten to subvert and even engulf duly constituted authority.[2] . . Totalitarianism represents simply the ultimate consummation of cartelism—the final, full expression of the reactionary forces stemming from special privilege.[3] . . . The greatest threat to our success in

[1] *Cartels Challenge to a Free World*, Public Affairs Press, Washington, D.C, 1944

[2] *Ibid*, p 3

[3] *Ibid*, p 3

achieving full production and full employment at home, and friendly cooperation with other nations abroad, is the philosophy and practice of privilege embodied in cartels.[1] . . . These private governments threaten the sovereignty of democratic nations. The political implications of cartel activity threaten to subvert future national public policy of the United States.[2]

If these statements are taken literally, it follows that an anticartel policy is the most important step the United States could take (1) to secure peace among nations, (2) to maintain democracy here and abroad, (3) to bring about an expansion of foreign trade and (4) to promote full domestic employment. It would also follow that in international security negotiations an anticartel policy should be the principal contribution of the United States; that in commercial policy negotiations such objectives as reduction of the scale of imperial preferences, curtailment of exchange rationing, tariffs and other trade barriers are definitely secondary to anticartel objectives; and that, at home, stringent enforcement of the antitrust acts should be our primary concern in assuring the maintenance of employment.

Such an evaluation of cartels, domestic and international, which is typical of dicta in recent Congressional hearings and antitrust pronouncements, seems to the author absurd and at variance with what can be and is known of present-day economics, politics and international relations. He would venture as his opinion (later to be discussed) that the injury inflicted by tariffs on domestic competition and American foreign trade has been several times greater than the effect of cartels; that current agricultural policy is likely to be such more damaging to exports than the total of American cartel practices, that intergovernmental commodity agreements will reduce the volume of postwar world trade more drastically than international cartels; and that the problem of dealing with

[1] *Op cit*, p 10

[2] *Ibid*, p 11.

state trading monopolies will far overshadow the difficulty of dealing with cartels.

This judgment does not deny the importance of the international cartel problem. Unfortunately, however, the post-war foreign economic policy of the United States bristles with "problems," and what to do about international business agreements is only one and not necessarily the most significant.

A NOTE ON THE MEANING AND RECENT USAGE OF THE TERM "CARTEL"

In its natural habitat, the word "cartel" describes what business firms do in agreements to fix prices (price cartels) or terms of sale (conditions cartels), to limit and pro-rate output (quota cartels), to define unit costs (calculations cartels), and so forth.[1] The primary emphasis of the definition is on neither the motive nor the effect produced on the state of competition, but on what the participating firms agree to do. An international cartel is an agreement, of the sort just described, among firms and associations domiciled in different countries. It is obvious that, in this sense, a cartel may or may not unreasonably restrain trade. It is equally obvious that cartel practices do not embrace all possible restraints of trade.

When the term cartel is used in an American context, however, it carries the rich complex of meanings attaching to our law and policy respecting restraint of trade Thus a cartel becomes an association of firms in the same industry or trade having the purpose or effect of unreasonably restraining trade. Whether an association that does certain things has the pur-

[1] In essence, a cartel agreement is an enduring limitation, or set of limitations, self-imposed by contract, on the freedom of participating firms in the same industry or trade The limitation may be negative, as when the firms agree not to sell through certain channels, or positive, as when the firms agree to use standard accounting procedures The effect on competition will depend on the share of the market covered by the agreement and the extent and character of the limitations imposed No statement of motives, other than the platitude that the agreement is undertaken to promote the interests of the participating firms, will embrace all the cases intended to be covered by the term "cartel"

pose of restraining trade or in fact does restrain trade is, then, a matter to be judged by a long line of judicial precedents. Export associations are cartels in the European sense of the term, but they are rarely referred to as cartels in American trade literature, presumably because the kind of restraint of competition they are supposed to undertake is considered reasonable within the meaning of the antitrust laws.

Defining a cartel becomes particularly difficult when patents and processes agreements are involved. Not every patent-licensing or exchange agreement is presumed to be a cartel, but only those that unreasonably restrain trade. Since, however, the line dividing action under legitimate patent rights from restraints of trade within the meaning of the anti-trust acts is continually shifting, the definition of a patent cartel at any one time is ambiguous, to say the least.

Current discussion of public policy respecting international business agreements has not been much clarified by the usage accorded the terms "cartel" and "combine" in recent Congressional hearings. The terms are either not defined at all or, if defined, are subsequently broadened to cover practically the whole field of business practices in foreign trade.

The author is not aware of any specific or limited meaning assigned by the U.S. Department of Justice to the term "cartel." Wendell Berge in his recent book, *Cartels Challenge to a Free World*, is of the opinion that if the Sherman Act were passed today it would be called not an Antitrust Act but an "Anticartel Act."[1] This would appear to mean that, as a modern, streamlined version of the word "trust," the preferred usage of cartel is political rather than descriptive.

This is, of course, a legitimate and useful way of employing the word "cartel." It was the way "trust" came to be used in agitation for anti-monopoly legislation and enforcement, and it is safe to say that, for this purpose, if trusts had not existed, some other term would have had to be invented. In the word "cartel" the enforcement agencies clearly have a very

[1] *Op cit*, p 2.

valuable political property No one can be publicly in favor of "cartels," just as no one could be in favor of "trusts." If the term "cartel" can be successfully tagged to an organization or practice of which one disapproves, the battle is as good as won.

There are then at least three ways in which the term "cartel" may be and is used: the first, an economic usage, employs the word to describe a certain type of business association; the second, a legal usage, looks to the purpose or effect of the association in unduly restraining trade as that phrase is currently interpreted, the third, or political, usage employs the term as a stick to beat "malefactors of great wealth," "economic royalists" and their ilk.

The "cartel problem" as discussed in this report means the problem of trade barriers imposed by private business agreements. When the word "cartel" is used in these pages, it is in its legal context. The less colorful term "international business agreement" obviously embraces a much larger range of questions.

II. CARTEL POLICY BY INTERNATIONAL AGREEMENT

A. THE PROPER SCOPE OF INTERGOVERNMENTAL REGULATION OF MANUFACTURED PRODUCTS

WE ARE concerned in this chapter with the possibilities of formulating a cartel policy by way of intergovernmental agreement, postponing to Chap. III a consideration of such policies as the United States might pursue in default of, or as a supplement to, intergovernmental agreement. What is recommended is essentially an agreement among governments to apply a rather drastic set of prohibitions to participation by their nationals in international arrangements restricting output, dividing markets, fixing prices and in other ways restraining trade. These prohibitions would apply equally to producers of primary and manufactured products.

It is recognized that the existence of chronic surpluses in some primary products may warrant a limited number of intergovernmental agreements to reduce output and exports and to stabilize prices. This is discussed in Part II. Justifications for intergovernmental regulation in certain circumstances affecting both manufactured and primary products are treated at length in Part II but need to be mentioned briefly here.

Intergovernmental agreement to control the shipment of materials or weapons of war may become an accepted security measure. Oil and minerals sanctions have been most frequently discussed, but sanctions can also be applied to manufactured products. As the United Nations organization takes shape, the administration of international trade controls over war materials will presumably rest with the Security Council. Conceivably a substantial volume of international trade might, at times, be subject to such control.

So long as certain materials and manufactures remain in

short supply, a justification exists for intergovernmental machinery to handle their allocation. The Combined Boards or their successors will be concerned with shortage problems until well into 1946; the European Coal Organization and the Emergency Economic Council for Europe are both required to allocate the European output of items in short supply among various claimant countries. Presumably, however, this particular requirement for intergovernmental commodity cooperation will be of short duration.

International trade in various drugs and narcotics has been under control by intergovernmental agreement for years, and the extent of this control may well be increased.

A group of public utility industries including aviation, shipping and telecommunications belongs neither in the category of raw materials nor of manufacturing but will certainly be subject to intergovernmental control. These industries, however, present special problems not considered in this report.

Finally, intergovernmental agreements for the conservation of irreplaceable resources may be justified in certain cases. This is, by definition, a raw materials problem and is discussed in Part II.

B THE PROBLEM OF WAR-INDUCED EXCESS MANUFACTURING CAPACITY

The argument most frequently advanced for intergovernmental commodity control has hinged on the existence of excess capacity with accompanying "cut-throat" competition. and the need for a rational scaling down of such capacity. It has been noted in Chap. I that surplus capacity called into being in the First World War was a potent cause of cartel formation in the interwar period. Similar dangers due to overexpansion have in all probability been created by the Second World War.

At this stage of postwar reconversion, when data are almost completely lacking on the amount of physical destruction in

Europe, on the quantities of equipment to be transferred to each claimant on reparations account and on the probable volume of demand, it is impossible to estimate the prospective magnitude and point of impact of this production imbalance. It requires no special sources of information, however, to know that the machine-tool industry, various branches of the engineering trades, aluminum, magnesium, nitrogen and a number of other industries will have a very large excess of fabricating capacity. In the absence of governmental prohibitory action, the exigencies of this surplus capacity are almost certain to lead in some industries to the formation of cartels If cartels are forbidden, a number of governments are likely to be confronted with pressure for protection of the domestic market and for possible public assistance in expanding exports, pressure that will be hard to resist. If domestic markets are protected but the regulation of exports by international business agreements is prohibited, it is quite probable that firms in the overexpanded industries will organize the domestic market and dump their surplus abroad to compete with the surplus product of other countries Such practices are almost certain to produce reprisals in the form of tariff and quota impositions elsewhere No anticartel policy, however clearly designed to expand the volume of world trade, is likely to be able to exorcise the war-created surplus fabricating capacity that will exist in many areas. At this stage of economic development, any solution that looks to restoring the operation of competitive market prices by way of wage reduction, bankruptcy, etc , is no longer practicable What must be recognized is that the cartel remedy, though at best a palliative and at worst a serious impediment to the flow of international trade and the maintenance of domestic prosperity, is manifestly at hand and, in the absence of positive measures to deal with industrial maladjustments, is likely to be used The success of a policy of cartel limitation by international agreement would appear to be closely related to the availability of alternative measures for dealing with postwar

dislocations for which cartels have been a traditional expedient.

One example out of many may be cited to illustrate the nature of the problem: the case of synthetic nitrogen. Even before the war, European nitrogen capacity was substantially in excess of peak domestic plus export requirements. In 1938 the European Nitrogen Cartel (Comptoire Internationale de l'Azote) was formed, including Imperial Chemicals, Stickstoff Syndikat (the marketing organization of I. G. Farben), the Solvay Company of Belgium, and French and Norwegian producers The sole important exporter of natural nitrates, the Chilean Nitrates and Iodine Sales Corporation, participated in these cartel operations through its London subsidiary. Apparently, Chile was assigned the United States and Egyptian markets, since imports of European nitrogen into these countries became conspicuously small, while at the same time Chilean exports to Europe were drastically limited. The European cartel attacked the problem of excess nitrogen capacity by concentrating production in a smaller number of plants On the outbreak of war the operations of the cartel were, of course, terminated.

As wartime nitrogen requirements for explosives increased, fabricating capacity was enormously expanded not only in the German-occupied areas but in the United States, Canada, Great Britain and Russia. Chilean exports to the United States increased too, and were limited only by shipping availability. Although the United States before the war was a large importer of nitrogen, a conversion to peacetime use of all seven of the government-owned plants would leave us with a capacity far above the most optimistic estimates of domestic requirements. Even if the U.S. Department of Agriculture recommendation for the conversion of 300,000 tons (out of approximately 600,000 tons of government-owned capacity) is accepted, we should still have a capacity that would completely free us from dependence on imports.

Once the United States ceases to import, Chilean nitrates

will be forced to seek a more extensive share in the European market They will there have to meet the competition of the already greatly expanded European production. Although European relief needs will keep nitrogen in short supply for perhaps a year, potential excess capacity is so large that the reconstitution of the cartel is already rumored.

One "solution" of this problem would be the formulation of an intergovernmental commodity agreement, establishing export quotas for the principal nitrogen-exporting countries and stabilizing prices. For various reasons discussed in Chap. VII, the United States may not consent to participate in such an agreement Important differences between excess-capacity situations in manufacturing and in agricultural industries make intergovernmental agreement an even more unsatisfactory arrangement in the former than in the latter. The case for intergovernmental agreements in certain agricultural products is developed at length in Part II; the argument rests, briefly, on three considerations.

1. Serious surpluses in agricultural products resist correction by competitive market forces and tend to become chronic Output is normally unresponsive to downward price changes over a short or even a moderately long period Producers cannot improve their position by individual output restriction, and their number is so large that organized curtailment of output is usually impractical The movement of producers out of agriculture is extremely slow, and although shifts in crops are possible there are frequently serious limitations to very large shifts Improvement through an increase in demand is handicapped, at least for certain basic foodstuffs, by the very low income elasticity of demand. For these reasons, basic agricultural products may be produced in surplus (relative to available markets) year after year.

2. The number of people dependent upon the production of a given basic agricultural commodity may in some countries be a substantial fraction of the total gainfully employed, while the exports of the same product may be a very large fraction of

total exports. The importance of coffee production and exports to a number of Latin American countries, of wheat to Canada and Argentina, of wheat and wool to Australia and of cotton to the United States and to Brazil should be noted A persistent depression of the price level of these products may have a serious effect on the balance-of-payments position of the countries involved (excepting the United States) and on domestic prosperity.

3. As a consequence of (1) and (2) there is a disposition on the part of governments to protect the producers of basic agricultural products and the country's exchange position Such unilateral action, met with the retaliation other countries are likely to attempt, can be more disruptive of international trade than an intergovernmental agreement sharing world markets among producers

For most manufacturing industries, the situation is substantially different. The relative size of producers and ease of organization make it possible to avoid some of the price effects of excess capacity, at least in the domestic market. Although fixed capital cannot be shifted easily to other uses, the mobility of labor is generally much greater among industries than between agriculture and industry. The income elasticity of the demand for manufactured products is usually greater than for foodstuffs; consequently, an increase in general prosperity will more appreciably benefit manufactures. There are few industries that account for so large a percentage of a country's total employment or total exports as basic agricultural items do in a number of countries producing primary products. If cartelization is available, excess manufacturing capacity may lead to the formation of cartels. In the absence of cartelization, there is no assurance that the kind of intergovernmental agreement arrived at for regulating foreign trade in an agricultural commodity can be successfully applied in a manufacturing industry.

To the question, therefore, whether governments might by agreement desire to undertake the regulation of international

trade in industrial products one must join another and perhaps more important: whether they *could* if they so desired One great obstacle lies in the variety of output of most manufacturing industries. The assignment of quotas and price stabilization are one thing for a graded or standard commodity such as wheat, cotton, sugar or tea, and quite another undertaking for the products of a typical manufacturing industry. But if private cartels can manage this task, why cannot governments? Because, unless the participating governments are willing to leave all decisions on price, output, stocks, export quotas, channels of distribution and other matters to private producers—really setting up a cartel under government authorization, as the prewar tin and rubber agreements substantially were—these governments would have to substitute their judgment for the judgment of private producers on matters that are normally left to entrepreneurial discretion. This has in fact been done for a number of basic agricultural products in many countries.

To undertake detailed regulation of a domestic manufacturing industry, however, as a corollary to controlling that industry's foreign trade, is a task that lies outside the competence and ambition of most governments. Under conditions of government ownership, an intergovernmental agreement allocating markets and fixing prices might be practicable. Under the present dispensation, government participation in international agreements affecting manufactured products can hardly go further than acquiescence in and support of the plans and policies of private cartel members. Governments may accept or reject these plans and, to a certain extent, suggest modification as a condition of acceptance, but in the absence of public ownership the substitution of government for private decision on the essential matters of output and price appears to be impracticable.

Where intergovernmental commodity or industry agreements are not feasible or are likely to be ineffective, what measures can be used to deal with war-created excesses and

dislocations of fabricating capacity? Intergovernmental agreement to scrap such capacity is one possible expedient, made easier in some cases by the fact that a substantial part of this capacity is already in government hands. In general, however, the kinds of situation that appear partially to justify international restrictive agreements in manufactured products can be most successfully avoided by the achievement of domestic full employment. If the transfer of labor from overexpanded industries to other employment can thereby be accomplished, the main justification for a policy of price maintenance through output control is removed. Unless a high level of employment can be maintained in the principal industrial countries of the world, any attempt to prohibit restrictive cartel practices by international agreement would appear to have little chance of success.

C. CARTEL REGULATION

Before turning to a consideration of what a program of curbing cartels by international agreement involves, the possibilities of cartel regulation should be noted. As suggested above, regulation is not likely to take the form, at least in manufacturing industries, of intergovernmental determination of proper prices, output, channels of distribution, etc. In any case, so far as the author is aware, no such plan has as yet been suggested.[1] "Regulation "would probably be limited to ap-

[1] In an interesting but somewhat cryptic paragraph in his notable book, *Full Employment in a Free Society*, W W. Norton & Company, Inc, New York, 1945, p 238, Sir William Beveridge appears to advocate cartel regulation in a form to be determined "by experience".

The whole trend of the argument of this Part of the Report [on international trade policy] is towards a management of international trade, in place of leaving it to unregulated competition That is to say, it is towards that for which the cartels stand To attempt to destroy or stop cartelization would, therefore, be a contradiction of policy. But it is equally essential that, whatever policy in regard to international trade is adopted by the Government of Britain, that policy should not be liable to defeat or deflexion by the extra-governmental decisions of cartels The latter should act in accord with national policy and as agents of that policy, not in disregard of that policy [At this point Sir William advocates the registra-

proval or rejection, under standards of varying severity, of plans for market control put forward by business groups One country could approve or reject the proposals of its nationals for cartel participation; or a group of countries might agree to apply common standards

In the United States, various groups have proposed a procedure of advance clearance by an administrative agency of plans for American firms' participation in international business agreements, and have suggested certain standards that such an agency might use in accepting or rejecting the plans. Both procedure and standards are discussed and rejected in the next chapter. In Britain certain industrial groups have come out strongly for international cartel agreements under proper supervision. A Coalition Government "White Paper" on employment policy pointed, less clearly, in the same direction [1] Although anticartel voices are not lacking in

tion of cartel agreements but advises that this is not sufficient] What is wanted is that those who have the responsibility of conducting great and highly organized industries should come to regard themselves as the agents of a wider policy than that of their business. Just under what forms and by what institutions this can be best accomplished can probably be learned only by experience

It is the author's view that the agents of public policy should be public officials rather than cartel executives, and that if public policy is really going to take the form of export restriction and price stabilization in particular industries, it had better be by intergovernmental agreement rather than by cartel arrangement This probably implies, for manufactured products, government export and import monopolies

[1] The World Trade Alliance, which has disseminated its views widely by pamphlet, has been the most vociferous exponent for world cartelization under supervision, but there is no reason to take the views of the Alliance seriously.

The Federation of British Industries has gone on record as favoring international cartels in the postwar world, in a number of publications Among them are *Reconstruction· A Report by the Federation of British Industries*, and *International Trade Policy*, a report by the F.B.I International Trade Policy Committee.

A privately circulated report by a subcommittee of the Conservative Party's Central Committee on Post-War Problems, entitled, *Work. The Future of British Industry*, favors a full report, by any British firm entering a cartel agreement, on the terms of the agreement, to insure that it does not conflict with commercial policy This report, which is entitled to serious consideration as representing Conservative Party views, is of the opinion that cartels can serve the interests of consumers as well as producers, if the purpose of the cartel is expansion of output.

Britain, they do not ring with the strong moral conviction to which we in our antitrust environment are accustomed.

To date the Labour Government has not published its views, if it has views, on the international cartel question. In fact, the Labour Party put little emphasis on either domestic or international cartel issues in the 1945 elections.[1] The Conservative Party, on the other hand, advanced a cartel policy and apparently, according to the London *Economist*, had prepared a draft bill on the subject [2] It proposed the establish-

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The Liberal Party's pamphlet, *Industry and the State*, frowns upon monopoly, but it is not clear whether the Party favors competition or control in the foreign field

Apart from the unorthodox views of Herbert Morrison, the Labour Party is historically and profoundly indifferent to the alleged advantages of competition

The subject of cartels was unilluminatingly debated in the House of Lords on Jan 25, 1944, on which occasion Lord Woolton, replying for the Government, promised that the Government's views on the subject would be clarified in the forthcoming White Paper on employment policy

The White Paper duly appeared on May 26, 1944, with a perfunctory statement on monopoly and a vague promise that the government would "seek power to inform themselves of the extent and effect of restrictive agreements, and of the activities of combines, and to take appropriate action to check practices which may bring advantages to sectional producing interests but work to the detriment of the country as a whole"

The debate on the White Paper in the House of Commons, June 21–23, and in the House of Lords on July 5–6, 1944, made it clear that the only group with a policy were the proponents of cartel arrangements under government supervision The debate was distinguished by Lord McGowan's lament that comprehensive international cartel arrangements would probably not be practicable for a few years after the war. "Unless German and Japanese goods," said His Lordship, "are excluded from world commerce—and that is not a practicable proposal for more than a few years perhaps—the only alternative available at the moment is a regime of bitter international competition "

At the International Chamber of Commerce meeting at Rye, N Y., a British delegate, Sir Clive Baillieu, is reported to have depicted cartels as "not all white or all black," and to have favored full publicity and government regulation of cartels There is every indication that Sir Clive was correctly reporting the dominant British attitude.

[1] The participation of representatives of the British government in the proposals concerning restrictive business practices published by the U S Department of State, November, 1945, is discussed in Sec E of this chapter

[2] June 30, 1945

ment of an independent tribunal, without powers of enforcement, to publish the results of investigations into cases of alleged malpractice brought before it by the Board of Trade "A malpractice is evidently to be defined as anything that injures the consumer or prejudices the export trade." We may accept the *Economist's* description of this proposal as "milk-and-watery" regulation indeed No registration of proposed business agreements would be required; the Board of Trade has only limited investigatory powers; and a malpractice, if accidentally discovered, would receive no more serious rebuke than that involved in publicizing it.

Neither in England nor the United States do the principal proponents of cartel regulation go further than to suggest the approval or rejection by individual governments of plans for international business cooperation. This might be carried a step further by international agreement on the standards governing approval or rejection, and still further by transferring the authorization or rejection of plans to an international body representing the participating governments. Such an international cartel policy might be adopted by countries with similar export interests or, as is suggested in Part II, with reference to commodity agreements, by all the nations engaged in foreign trade represented in the United Nations. In the absence of positive proposals and with the possible variations numerous, the whole subject of cartel regulation is so highly speculative that it seems hardly worth while to attempt to discuss its ramifications Two comments, however, need to be made before we offer recommendations for an intergovernmental cartel program.

1. In Chap. III the proposal for advance approval by a government agency of American firms' participation in international business agreements is rejected principally on the grounds (*a*) that even with complete disclosure it is impossible for officials to appraise in advance the effects of a particular scheme of regulation on competitive conditions and (*b*) that, in fact, disclosure is never likely to be complete. If

an international agency, representing *all* trading nations, were established to clear proposed business agreements, it is probable that disclosure would be much less complete and that officials charged with the task of approving or rejecting plans would be even less competent to judge their probable effects. There is the further probability that an international organization representing countries that import as well as export manufactured goods would have great difficulty devising standards to distinguish permissible from prohibited agreements It is altogether a simpler problem, though difficult enough, to deal with a relatively homogeneous primary product than with the output of a manufacturing industry.

2 Regulation of cartels by countries having similar export interests could hardly mean anything less than approval of cartel agreements—with or without a considerable degree of government control—as a device for stabilizing the market within the cartel area and for increasing prices on exports from the area To stabilize markets, however, would hardly be possible if outside competitors were free to send their surpluses into the area, so that common action to exclude competitors might be necessary. If outside competitors continually undercut prices on exports from the area, it would also be extremely difficult to maximize the bargaining advantages of the group in trade with third countries. In such cases it might be necessary to undertake bilateral trading arrangements for the purchase of raw materials from third countries on condition that these countries purchase raw materials from the group.

Regional cartel arrangements of this sort would hardly be set in motion except as part of a broader commercial policy agreement. As such, cartel arrangements would open up possibilities for trade discrimination and economic warfare of the most disruptive kind. Something like this was foreshadowed by the agreement at Düsseldorf in 1939, in which representatives of the Federation of British Industries and the Deutsche Industrie Verband agreed to seek the assistance of their respective governments against other countries (clearly

the United States) who might refuse to cooperate with the international industrial agreements there prepared.[1] It was apparently the intent of the industrialists assembled at Düsseldorf that government participation in cartel regulation should be limited to coercing outsiders into agreement and to policing the agreement once made.

D. PROPOSED INTERNATIONAL AGREEMENT ON THE CURBING OF CARTELS

Although international cartels do not constitute the most important trade barrier, they have definitely impeded the flow of goods in international trade and narrowed the area of competitive private trading. Whatever stabilizing influence cartels have exerted has been in the direction of prices and profits and away from production and employment. The effect of cartel practices on international trade has become sufficiently pervasive to be a matter of public concern. The alternatives confronting public policy are, on the one hand, some type of regulation or some form of antitrust procedure and, on the other, policy by international agreement versus local policies affecting the participation of nationals in cartel agreements.

It has been argued above that apart from special cases requiring intergovernmental regulation of the flow of manufactured products in international trade for security or a few other reasons, any broad-scale regulation of cartels is likely either to be inadequate or impracticable. A clearance of proposed business plans by international agreement is inadequate; regulation that substitutes the judgment of government officials for that of private traders in manufacturing industries is impracticable when these traders must still bear the responsibility of loss. Whether, if industrial facilities were government owned, control by international agreement would in certain cases be advisable, is a question that, under the circumstances, does not have to be answered.

[1] This agreement is discussed at greater length in Chap. IV.

It has been steadily emphasized that unless positive measures are undertaken to provide jobs elsewhere for workers now employed in war-expanded industries and, where essential, to scrap or hold out of production excess facilities, the pressure for cartelization will be great. It is on the assumption that conditions favorable to the expansion of domestic employment and multilateral trade are forthcoming that a program for curbing cartel practices is proposed. Under these conditions, proponents of an effective international program of business restrictions on foreign trade would have to wrestle with four main problems

1. What business agreements in foreign trade should be considered to fall within the program; what terms of these agreements should be dealt with; and how?

2. How can the advantages of international exchange of industrial techniques be preserved and the restriction to competition customarily involved in such exchange be offset?

3. How can the large international combine, which can be as restrictive of trade as a cartel agreement, be regulated?

4 What type of international machinery is adapted to an effective curbing of cartel practices?

It is unlikely that a workable solution can be found for all these problems or, if found, that it can be made acceptable to all governments concerned. It is tempting, but fruitless, to try to close all loopholes, regardless of administrative difficulties or the pressure of important special interests. The adequacy of any program should be judged by the more modest test of whether it substantially frees foreign trade, while providing the machinery for concerted action where such action is demonstrably desirable.

What is contemplated is an international convention whereby the signatory nations would agree to take recommended action with respect to the participation of their nationals in international business agreements and combines, and also to handle problems of postwar economic dislocations and exchange shortages by means other than cartel arrangements.

What might be involved in such a convention can best be discussed under the problem headings suggested above.

Business Agreements Included, and International Action Recommended

The proposals suggested below are intended to apply to those restrictive business agreements that are either dependent upon or not dependent upon an exchange of patents and processes knowledge. The first type, involving the possibilities of freer exchange of industrial technology by intergovernmental agreement, will be discussed in the next chapter.

The cartel agreement achieves its restrictive effect chiefly through six practices: (1) terms providing for the fixing of prices, including discounts and premiums; (2) division of export markets among participants, through assigning either exclusive market areas or market quotas; (3) charging of penalties or granting of rebates for exceeding or falling short of assigned quotas, (4) refusal to do business with certain classes of enterprise or through certain channels of trade, (5) suppression of technology; (6) systematic price discrimination as between markets in which the competition of outsiders is greater or less. Many other terms may be written into the agreement, but they are usually of less, or negligible, effect on the organization and functioning of the cartel market. It must be remembered that in cartels whose market controls are not vested in patents or trademarks, the governments of the participating nationals frequently play a considerable role. In fact, as we have said, such cartels tend to break down rather easily without government support.

Any program for curbing cartels must deal with the practices mentioned above. Two questions then arise: should export and import associations be included within the meaning of international business agreement? Should restrictive practices be prohibited outright, or only those practices that are "unreasonably" restrictive?

Export and import associations frequently limit competition among their members precisely as do cartels whose participants are domiciled in different countries. Excluding such associations from the coverage of an international agreement would definitely weaken the effectiveness of its international cartel provisions. Foreign firms could participate in these associations through their subsidiaries; such arrangements might in some cases approximate an overtly international restrictive agreement. Finally, the influence in world trade of a British or American export or import association may be equal to that of a cartel embracing a number of smaller countries. Consequently, it can be argued that if the larger countries keep their associations, the smaller ones must be permitted international cartels.

It seems to the author impractical, however, to attempt to treat import and export associations as cartels. In most countries outside the United States, there is no legal distinction between domestic self-regulating associations and export associations. Customarily, both are legal, and there is no antitrust machinery for overseeing or dissolving them. Furthermore, given a group of firms producing for both the domestic and foreign markets, an association for regulating competition at home would almost automatically imply limitation of competition among members on sales or purchases abroad. In the circumstances, an international anti-cartel policy that attempted to curb import and export associations might be effective in the United States, but hardly abroad If we want to accomplish this result, unilateral action directed against our own associations is preferable to action through an international agreement.[1] The probable development of state trading in the postwar world strengthens the argument for export and import associations as bargaining instruments. Whatever the economic merits of this argument, it is unlikely that state trading can increase on a large scale

[1] American policy toward export associations is discussed in the following chapter

without making the organization of importers and exporters in nonstate-trading countries politically inevitable.

Assuming, then, that an international anticartel policy should cover only business agreements among firms domiciled in different countries, shall designated practices be regarded prohibited as defined, or only when they *unreasonably* restrain international trade? If agreement can be reached among governments that certain cartel restrictions are *per se* unreasonable, it is definitely better to prohibit as defined; but difficulties of definition are such that an over-all prohibition of unreasonable restraints is probably the only basis that can be used. This leaves the difficult problem of differences of interpretation in different jurisdictions of what is, in any case, a highly ambiguous concept. In this country the courts appear to be definitely broadening the scope of what they are disposed to consider restraints unreasonable *per se.*[1] In England, on the other hand, it is rare that any consideration of the public interest as distinct from the interests of the contracting parties is undertaken in determining the reasonableness of a contract restraining trade.

Different countries would consequently treat their commitments under such a proposed convention differently In general, the United States would be found to hold its nationals to a much more rigorous interpretation of what constitutes an unreasonable restraint of international trade than would most other countries. However, since in the absence of agreement the differences in national policy would probably be even more extreme, there is still a strong argument for multilateral agreement. Through intergovernmental discussion a more uniform view of what constitutes an unreasonable restraint of international trade may emerge. Greater unanimity should develop if, as is suggested below, the proposed international convention on cartel policy established a permanent agency for evaluating international business arrangements and making policy recommendations to participating governments.

[1]*Cf*, in particular, *U S v. Socony-Vacuum Oil Co*, 310 U S. 150.

What is suggested for inclusion in an international cartel convention is a general prohibition of provisions that unreasonably restrain international trade and an undertaking by the participating governments to enforce this prohibition as against their nationals. For terms that tend to be predominantly and significantly restrictive, the prohibition, if it can be adequately defined, should be against the practice as defined. When possible, the presumption should be that the prohibited practice is unreasonable *per se*.

International Patents and Processes Agreements

American participation in international business agreements restricting foreign trade has been based predominantly on the exchange of patents and processes knowledge. Probably nine-tenths of the international cartels of which American firms were members have taken this form.[1] Although the U.S. Department of Justice, in Congressional hearings and elsewhere, has minimized the importance of international exchange of technology and has emphasized the restrictions on production and sales imposed in patents and processes agreements, there is no doubt in the author's mind that this technological interchange has been of great public value. Moreover, at this stage of the development of synthetic products—oil, rubber, plastics, textiles and others—it is highly desirable to have as full and free an interchange of research results and processing knowledge as is possible.

There can be little doubt that the potential advantages of

[1] A list of 26 antitrust suits against American firms participating in international cartels is given in Berge's *Cartels. Challenge to a Free World*, pp 252–254. Of the 26 agreements, 18 are clearly based on patent exchanges, in most of the others, patent controls played some part in the system of restraints involved in the agreements.

Cf, Hearings before a Subcommittee of the Committee on Military Affairs, U.S. Senate, 78th Congress, 1st Session, 1943, Part II, Analytical and Technical Supplement, pp. 5, 6. The report of this committee, henceforth called the Kilgore Committee, lists 63 American companies reported as having, in 1937, agreements with I G Farbenindustrie All these were basically patents and technical data agreements

international exchange of technical knowledge far exceed their actual realization. Patents and techniques have been acquired from abroad with serious limitations on their use; American processes and patents have been sold and licensed abroad under similar limitations. When technical knowledge has been pooled or cross-licensed under our international patents and processes agreements, the monopoly power of the participating firms is also pooled. A suppression of competing processes and an extensive allocation of world markets then becomes possible.

All the restrictive devices involved in the licensing and cross-licensing of patents are present in the domestic market, so that the whole problem of how technology may best be exploited in the public interest is more a domestic than an international issue. The need for domestic patent reform, discussed briefly in the next chapter, does not, however, preclude an attempt to establish by international agreement certain standards of reasonableness applicable to the business exchange of patents and processing knowledge that the participating governments might undertake to enforce. International agreement in this area may have to face exceptional difficulties, but there are still certain ways in which a freer interchange of technology may be promoted by international action.

A first step might be to establish, by international agreement, machinery for the compilation and dissemination, to participating governments, of information concerning the scope and character of international patents and processes agreements, leaving to individual governments the right to take such measures as are deemed advisable in view of the facts disclosed. A second step might involve the development and expansion of governmentally directed industrial research institutions with provision for the international interchange of research findings.[1]

[1] Something like this, limited to a particular field, is foreshadowed by the proposal, accepted at a meeting of foreign ministers in Moscow, December, 1945

Awareness of the scope and character of international patents and processes agreements in which American firms have participated is of very recent origin and has been developed almost exclusively through the numerous antitrust suits instituted since 1940 against American participants in such agreements. This knowledge, furthermore, is and must remain incomplete, pending the interchange by governments of information available in the different jurisdictions. Enough is known, however, to indicate the nature and extensive influence of the restraints on international trade.

Most common and by far the most important type of restriction is the assignment of exclusive rights of production and sale in certain areas, and of quotas, to the participants in areas exploited together. In the U. S. Department of Justice complaint against Imperial Chemical Industries, du Pont and others, it was charged that du Pont was assigned as its exclusive territory the United States and Central America, and that ICI agreed not to export into this territory without du Pont's consent. Similarly, ICI is said to have been given the British Empire, excepting Canada and Newfoundland, as its exclusive territory, and that du Pont agreed not to export into this area without ICI's consent. It was charged

> That the defendants agree to eliminate competition between themselves in non-exclusive territory by entering into various special contracts, agreements, arrangements and understandings, including the formation and maintenance of joint companies to sell the products of the defendants in accordance with agreed upon quotas and prices.[1]

Although only competition between du Pont and ICI was affected by a particular agreement, both ICI and du Pont had separately entered into agreements with other firms in the chemical industry, including I. G. Farbenindustrie. The

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for a Commission for the Control of Atomic Energy Among other duties the Commission would make specific proposals "for extending between all nations the exchange of basic scientific information for peaceful needs" *Cf*, *The New York Times*, Dec 28, 1945.

[1] Complaint filed Jan 6, 1944, Southern District of New York, p. 11.

whole series of agreements would have to be interpreted relationally before it would be possible to develop a clear picture of the extent and character of the control of world trade in chemical products. International machinery for the exchange of information would greatly facilitate an understanding of this control.

Another common restriction in international patent and processes agreements is a limitation on the use of the acquired techniques. The comprehensive set of use restrictions in the agreement between I. G. Farben and Standard Oil of New Jersey has been discussed chiefly in connection with American security interests and is consequently considered in that context in Chap. IV. Less frequently, restrictions are put on quantities produced and prices charged by patent licensees. The same limitations, including provisions for licensing all future patents, are encountered in a more extensive and important form in the interchange of patents and processing knowledge among domestic firms

This is equally true of the limiting of competition through the pooling of competitive patents, of which there are some striking examples in international patents and processes agreements. In the U. S Department of Justice complaint against the National Lead Company and others, for instance, it is charged that a pooling of competitive patents for the production of titanium—a source of superior pigments for paint—effectively destroyed competition in world markets and in the United States.[1]

[1] Complaint filed June 24, 1944, Southern District of New York, p 7, "In addition to acquiring all patents covering the Barton and Rossi process, the Jebsen process, the Auergesellchaft process in all countries, and the U.S patents covering the Blumenfeld process, the Allied companies have taken out and purchased numerous patents relating to the manufacture and sale of titanium compounds, and throughout the period covered by the conspiracy have owned substantially all patents of commercial importance relating to the manufacture and sale of such compounds, and by pooling such patents have possessed the power, by concerted action, to prevent persons, other than themselves, from engaging in the manufacture and sale of titanium compounds in the United States"

Any acquisition of exclusive patent rights or of exclusive rights in technical know-how tends to increase the market control of the acquiring firm. When the firms are large relative to the world market, as are du Pont and Imperial Chemicals, a patents and processes agreement may give them a dominant position in world markets. A modification, by domestic patent legislation in different countries, of the rights conveyed in such an exchange may weaken this position and open the road to a partial acquisition by competing firms of techniques covered by the agreement. There is little likelihood, however, when two firms have pooled their research facilities and results as closely as have du Pont and ICI, that substantial competition can be restored between them by any sort of governmental action, national or international Public policy is pretty much faced with a choice of accepting, along with the technological interchange, a substantial diminution of competition, or of attempting to preserve competition by denying the right to exchange technology. It is the author's view that the advantages of the interchange heavily outweigh the unavoidable restraints involved.

A series of restraints, however, is probably avoidable. An international agreement for the exchange of information among governments on the scope and character of patents and processes arrangements in which their nationals participate would require member governments to take remedial action by patent and antitrust legislation and procedure.

A further measure to promote the exchange of industrial technology among countries, and yet free it from privately imposed restraints, deserves consideration. It seems probable that government-supported research, already extensive in certain areas, will be considerably expanded in the postwar period. Research in agricultural technology has been almost completely socialized and institutionalized in the United States and in many other countries. The findings of the U. S. Department of Agriculture and of the Agricultural Ex-

periment Stations are actively disseminated through the Agricultural Extension Service.

The small agricultural production unit obviously requires that if research in new technology be carried on it be done by the state. Although the unit size is generally quite different in industry, it seems probable that there are fields of industrial technology in which good results could be secured by government action. Drugs and pharmaceuticals would appear to be one such area Patentable results could be made available to all potential users either on a royalty basis or royalty free. The magnificent results accomplished by the Office of Scientific Research and Development and its affiliates in technical research on devices of use to the military give some indication of the potentialities of government-supported and disseminated technological research.

The full and free exchange of technical findings of military significance among various of the United Nations also foreshadows what might be accomplished in peacetime by an international exchange in the field of industrial technology. The development of radar, penicillin, jet propulsion, atomic energy and a host of other items, of a significance by no means wholly military, was enormously facilitated by international pooling of research results.

The coming of peace has, of course, substantially altered the terms on which intergovernmental exchange of technological discoveries can take place. Considerations of competitive advantage now impinge, but these need not create insuperable obstacles. Industrial research in Russia is already state-controlled, and it seems probable that the extensive socialization in prospect in many European countries will carry with it a considerable expansion of state-controlled technical research. Technological obsolescence has already occasioned serious concern in industrial Britain, and among the various proposed remedies is a greater utilization of government-owned and operated research facilities.

If industrial research is extensively underwritten by gov-

supply of nickel, outside Russia, is controlled by International Nickel through its ownership of the great Canadian deposits. Climax Molybdenum of Colorado produces 95 per cent of the world's output of molybdenum.

A shift from the cartel form to the combine is illustrated by what happened to the control of platinum metals in the middle 1930's. Before that, producing interests in South Africa, Russia, Canada and Venezuela had united in an international cartel that controlled world prices and established output quotas. About 1935, International Nickel's production of platinum metals as by-products became so large that the Canadian company dominated world markets. As the prices charged by International Nickel set the scale for producers elsewhere, the cartel was forced to dissolve

In a combine a group of companies is organized in a relationship of parent and subsidiaries, or affiliates. It becomes an international combine if the parent and subsidiaries, or the affiliates, are domiciled in different countries. However, the degree of control of parent over subsidiary or the extent of common action implied by affiliation exhibits so wide a range of variation that to determine whether a particular group of companies constitutes a combine, as defined, is frequently extremely difficult.

Domestic antitrust policy, although it recognizes the large firm or combine as well as the agreement among competitors as a source of monopoly power, has not been conspicuously successful in dealing with the former. A certain inconsistency has long been evident in the application of antitrust policy to these different forms of potential restraint. With respect to the large firm or combine, the doctrine that size itself is no proof of restraint or monopoly of trade has tended to be the rule. With respect to agreements, on the other hand—at least agreements for fixing prices—interpretation has been much more stringent.

This inconsistency, in part, has been due to the fact that the monopoly effects of the large firm or combine are less

easily perceived while in agreements among competitors these effects can frequently be inferred from the terms of the agreement itself. In international combines, the obstacles in the way of tracing the relationship between parent and subsidiary, and of affiliates, operating in different national jurisdictions, are much greater; and to these difficulties must be added the secrecy legislation of various countries. Switzerland, a prime example, has by virtue of its protective laws attracted the central control units of a number of international combines.[1]

For these and other reasons, it seems improbable that international agreement can be reached on a program that will eliminate the monopoly effects of international combines or bring them under comprehensive control. Even if—and it is by no means certain—International Nickel by reason of its dominant position in world markets has charged higher prices and produced less than it would have under more competitive conditions, the Canadian government would probably not be influenced to do anything about it. This is not to say, however, that nothing can be done about international combines or that, in the absence of comprehensive action, an international anticartel program would be useless.

Possibilities for control of world trade in a particular product by a single firm or combine would appear to be limited to a very few primary products and to patented articles or goods produced by patented processes. The development of synthetic substitutes, furthermore, is continually encroaching upon monopolies of the first group. Synthetic nitrogen long ago destroyed the monopoly position held by the Chilean

[1] It has been suggested that this problem of "international Delaware corporations" might be handled by denying, to firms incorporated in countries in which they do no substantial business, access to the markets of signatory powers Such incorporation, however, is frequently for legitimate purposes. For example, because of local inadequacies, the China Trade Act permits firms doing their principal business in China to incorporate outside the country. Likewise, the legitimate avoidance of discriminatory tax laws is sometimes the reason for incorporation in jurisdictions other than the one in which the firm does its principal business

producers of the natural product. Atabrine (synthetic quinine) is a fairly effective substitute for monopolized natural quinine. As for patented articles and processes, if control by a combine in world markets substantially exceeds that granted by patent rights, it is usually because of restrictions agreed to by the combine and its normal competitors.

The cross-licensing of competitive patents may, as explained in the previous section, substantially increase the monopoly power of participating firms. If the participants are large international combines, such as du Pont, I. G. Farben or Imperial Chemicals, the restraints to trade may be important. It is doubtful whether, except in a few basic materials, international combines could or would exert a substantial control of world trade outside the framework of cartel arrangements and patent rights.

If this judgment is sound, it follows that an international anticartel program might accomplish a substantial freeing of international trade even though combine activities were not brought under control. Certain positive measures, however, might be directed against combines by international agreement.

The interrelation of business units domiciled in different countries is difficult to trace, and ignorance of these relationships often handicapped the enforcement of wartime security measures. German control of the American licensee of beryllium patents, for example, was unknown to this government until shortly before the war. The implementing of blockade, censorship and other acts of economic warfare is immeasurably weakened by lack of knowledge of international subsidiary and affiliate relationships. Although this information could be assured in part by domestic legislation requiring federal incorporation of businesses engaged in foreign trade, adequate disclosure of international combine ramifications could probably not be guaranteed unless the several countries agreed to pool the information available to each.

If, furthermore, an international agency for the study of

business practices is actually established, one of its tasks should be the examination of the structure and practices of international combines, with a view to preparing recommendations for action by the signatory powers.

Finally, one form of international combine that is likely to develop if effective measures are taken against cartels is a jointly owned subsidiary established by former cartel participants for the exploitation of third-country markets. Instead of apportioning these markets by the assignment of quotas, competition could be eliminated by sales through a common subsidiary. Should the ownership of subsidiaries by competitors domiciled in different countries not be forbidden outright, machinery should at least be provided for the relief of countries adversely affected by such operations.

What is suggested, therefore, as a minimum, is the inclusion in an international cartel convention of provisions for (1) the registration and reciprocal disclosure of information on the foreign subsidiary and affiliate relationships of nationals of the signatory countries, (2) the study by an international agency of the effects on foreign trade of the relationship disclosed and (3) action by the signatory governments against participation by their nationals in jointly owned subsidiaries when the effect is to eliminate competition in third-country markets.

International Machinery

Certain weaknesses show up at once in the program sketched above for cartel limitation by international agreement:

1. The enforcement of prohibitions against their nationals' participation in certain types of cartel agreement is left to the individual countries. It may be predicted with certainty that enforcement will vary markedly as between countries. To the extent that the practice to be prohibited can be so defined that evidence of an agreement is evidence of the offense, divergence in enforcement may not be great. But when the test, as it must be in most cases, is whether a business association is acting in such a way as unreasonably to restrain trade, differ-

ences in judicial tradition and in public attitudes will inevitably lead certain jurisdictions to approve of practices disapproved by others.[1]

2. Omission of any adequate measures for the control of combines must lead to the supposition that, if certain market results become inpracticable by the cartel route, the combine method will be chosen. It should, however, be pointed out that (1) there are some rather formidable obstacles to the formation of ownership groups, particularly across national boundaries and (2) one of the more obvious combine routes, the establishment of jointly owned subsidiaries in third countries, is to be prohibited.

3. The failure to apply to export and import associations the prohibitions applied to international cartels may offer avenues of evasion. How great an evasion is difficult to predict, but it could not become very significant without a marked change in the nature and function of such associations. If and when a change became evident, the relevant provision in the convention might have to be altered.

These and other weaknesses might be remedied by further study of international business arrangements and by continued discussion of standards and methods of enforcement by representatives of participating countries. The convention should therefore provide for the setting up of an international agency

[1] What is needed, manifestly, is the development of common standards of business practice in the field of international trade that will be uniformly enforced in the various jurisdictions Although the fact-finding and recommendatory powers of the proposed Office of International Business Practices may be expected to lead in that direction, its influence might be slow and uncertain. A somewhat radical suggestion that is, nevertheless, worthy of consideration is the establishment of an international quasi-judicial body to issue orders or recommendations. In a descending order of comprehensiveness the powers of such a tribunal might be defined as follows: (*a*) to issue "cease and desist" orders, enforceable by the courts of the member nations, just as such orders by the Federal Trade Commission are enforceable by Circuit Courts of Appeal in this country; (*b*) to issue such orders in cases involving practices that have been defined by international agreement to be unreasonable *per se*, (*c*) to issue recommendations on the basis of which the participating governments might bring action in their own courts

to be called, possibly, an Office of International Business Practices, concerned principally with studies and the preparation of recommendations. Since cartel policy is only one part of the broader field of commercial policy, such an office should be affiliated with and subordinate to an international commercial policy organization.

An Office of International Business Practices might conceivably have the following three main functions:

1. To act as a repository for registration statements and such other information as business firms are required by international agreement to disclose on foreign-subsidiary and affiliate relationships and on international business agreements.
2. To report to the participating governments on the enforcement of the cartel convention in the various countries.
3. To study further the problem of international business practices and to recommend to the international commercial policy organization the calling of conferences to discuss changes in the cartel convention.

In a field as unexplored as that of international cartels and combines, the establishment of what amounts to an international research group might contribute substantially to the development of effective and relatively uniform standards of control of business arrangements in foreign trade.

E STATE DEPARTMENT PROPOSALS CONCERNING RESTRICTIVE BUSINESS PRACTICES

The *Proposals for Expansion of World Trade and Employment*[1] published in November, 1945, by the U.S. Department of State look toward the reestablishment of international trade on a multilateral basis and contain a chapter, "Restrictive Business Practices," that requires comment in the light of the anticartel program discussed above. Since the *Proposals* followed three months of intensive discussion between techni-

[1] These *Proposals* were "developed by a technical staff within the Government of the United States, in preparation for an international conference on trade and employment, and presented for consideration by the peoples of the world."

cal experts of the British and American governments, and since the British government has expressed itself to be "in full agreement on all important points,"[1] it must be supposed that this document represents a reconciliation or compromise of such differences on cartel policy as may have previously existed between the executive branches of the two governments.

The provisions concerning restrictive business practices are contained in Chap. IV of the *Proposals*.[2] Paragraph (1) is a statement of objectives that does not differ in essential respects from those recommended in this report.

> There should be individual and concerted efforts by members of the Organization [the proposed International Trade Organization] to curb those restrictive business practices in international trade . . . which have the effect of frustrating the objectives of the Organization to promote expansion of production and trade, equal access to markets and raw materials, and the maintenance in all countries of high levels of employment and real income.

The qualifications in the latter part of the above sentence on the general statement of purposes are of little significance. A business practice that does not hamper "the expansion of production and trade," "equal access to markets," and the "maintenance of high levels of employment and real income" must be judged to be generally nonrestrictive. The statement of objectives embraces both cartel and combine practices. Although from the language of Paragraph 1 it might be presumed that export and import associations are included in the business agreements against which action is proposed, it is made clear in Paragraph 2 that only restrictions imposed by "a private *international* combination or agreement"[3] are in question.

The *Proposals* do not go nearly so far in implementing anti-cartel objectives as those recommended in this report. It is

[1] *Joint Statement by the United States and the United Kingdom regarding the Understanding Reached on Commercial Policy*, Dec 6, 1945

[2] The text of Chap IV of the *Proposals* is given at the end of this chapter, p. 64.

[3] Italics added.

not proposed that countries agree on a statement of cartel and combine practices to be specifically prohibited by legislation to be enacted in the several countries (or on a finding that they unreasonably restrain trade). Rather it is recommended that the International Trade Organization should (1) "receive complaints from a member," (2) "be empowered to call upon any member to provide information relevant to such a complaint," (3) "make recommendations to the appropriate members for action in accordance with their respective laws and procedures," and (4) "be empowered to request reports from members as to their actions in implementing such recommendations, and to report thereon."

It is the author's view that, if it could be reached, an international agreement to attack the cartel problem by legislation would be a considerably more effective weapon against restrictive business practices in international trade than that proposed by the U S. Department of State, even if the legislative standards and their judicial interpretation varied appreciably in the different jurisdictions. Furthermore, although it is recommended that the International Trade Organization be authorized "to conduct studies," "to make recommendations concerning uniform national standards" and "to call conferences" to consider questions in the field of international business practices, the failure to provide for registration of international business agreements and the foreign holdings of business firms will severely limit the sources of information regarding cartel and combine practices. Finally, the *Proposals* are silent on the question of the international exchange of technology and how it may be promoted without encountering trade restrictions.

Despite these shortcomings, however, it must be recognized that the *Proposals* represent a substantial movement toward an anticartel policy in international trade. Whether the recommendations could have gone further it is difficult, if not impossible, for an outsider to say. The support of Great Britain is essential to the success of any conference on international

trade policy, and apparently the support of Britain has been secured for measures looking toward the curbing rather than the regulation of cartels. It is always possible that, should the sentiment in countries participating in the World Trade Conference run strongly against restrictive cartel practices, a more drastic program might be adopted.

Finally, it should be said that Paragraph 3 of the chapter, "Restrictive Business Practice," leaves the United States (or any other country) free to pursue as stringent a policy as it cares to against restrictive practices by its own nationals in international trade. Paragraph 4 looks toward a greater measure of cooperation among the participating countries in the enforcement of such corrective policies as may be pursued by any one country.

U S DEPARTMENT OF STATE PROPOSALS FOR EXPANSION OF WORLD TRADE AND EMPLOYMENT

Restrictive Business Practices[1]

1. *Curbing of Restrictive Business Practices* There should be individual and concerted efforts by members of the Organization to curb those restrictive business practices in international trade (such as combinations or agreements to fix prices and terms of sale, divide markets or territories, limit production or exports, suppress technology or invention, exclude enterprise from particular fields, or boycott or discriminate against particular firms) which have the effect of frustrating the objectives of the Organization to promote expansion of production and trade, equal access to markets and raw materials, and the maintenance in all countries of high levels of employment and real income.

2 *Cooperation among Members.* In order to achieve the purposes of Paragraph 1, the Organization should be charged with the furtherance of this objective. The Organization should receive complaints from any member (or, with the permission of the member, from commercial enterprises within its jurisdiction who allege that their interests are affected), that the objectives of the Organiza-

[1]This is Chap IV of the *Proposals.*

tion are being frustrated by a private international combination or agreement. The Organization should be empowered to call upon any member to provide information relevant to such a complaint; it should consider such data and, if warranted, make recommendations to the appropriate members for action in accordance with their respective laws and procedures; it should be empowered to request reports from members as to their actions implementing such recommendations, and to report thereon. The Organization should also be authorized, within the scope of its subject matter, to conduct studies, to make recommendations concerning uniform national standards, and to call conferences of member states for purposes of general consultation.

3 *Continued Effectiveness of National Laws and Regulations Directed against Restrictive Business Practices.* Any act or failure to act on the part of the Organization should not preclude any member from enforcing within its own jurisdiction any national statute or decree directed toward the elimination or prevention of restrictive business practices in international trade.

III. AMERICAN POLICY TOWARD BUSINESS AGREEMENTS IN FOREIGN TRADE

A THE ALTERNATIVES TO INTERNATIONAL ACTION

DISCUSSION of national policy concerning the participation of American firms in foreign-trade agreements has centered around four questions: (1) the proper role of export associations, (2) participation by American associations, firms, and their foreign subsidiaries and affiliates in cartel agreements not directly affecting United States imports or the exports of other firms, (3) agreements between American and foreign firms or export associations directly affecting American imports or the exports of other firms and (4) international technical data agreements.

If a cartel policy could be formulated by international action along the lines indicated in Chap. II, it would allay certain doubts concerning the wisdom of enforcing our antitrust acts against American participants in international business agreements restraining and regulating foreign trade. Such action would leave export associations (and import associations in other countries) intact but would prohibit restrictive trade agreements among nationals in different countries. American implementation of the latter types of agreement is already at hand in the enforcement of our antitrust acts. We should presumably have to make new provision for the registration of both international business agreements involving American participants and the existence or acquisition of ownership or affiliate interests by American firms abroad.[1] In addition we

[1] If the Bretton Woods Agreement is accepted, we shall be obligated in any case to collect information on the foreign ownership interest of American nationals See *Articles of Agreement, International Monetary Fund and International Bank for Reconstruction and Development*, United Nations Monetary and Financial Conference, Bretton Woods, N H, July 1 to July 22, 1944, U S. Treasury, Washington, D C 1944, Article 8, Sec 5.

might be required to provide for the exchange with other countries of government-developed technology. The terms under which American firms should be allowed to acquire or license patents and technical know-how is mainly a domestic problem; and domestic policy is probably applicable, without significant modification, to technical data agreements between American and foreign firms.

However, if international agreement proves impracticable, we may be confronted with a new and different set of problems. If, for example, the quest for national security and economic protection leads to the formation of blocs and groups pursuing discriminatory policies toward American property and American trade, we might be forced into a kind of commercial imperialism foreign to our interests and traditions. In such circumstances, American firms investing and trading abroad would doubtless be granted the government protection and assistance they seem frequently to desire, but under conditions which, in the long run, would not be conducive to the preservation of free enterprise

In view of the postwar power position of the United States, it seems unlikely that hostile measures will be taken against us unless we pursue policies so disruptive of world trade and so unresponsive to international security interests as to compel other countries to isolate themselves from American influence A wholesale dumping of subsidized agricultural surpluses and uncontrolled fluctuations of employment in the United States might so far disorganize world trade as to invite counteraction of this sort. However, with anything like adequate recognition at home of the responsibilities inherent in our dominant economic and military position, United States influence in shaping the future organization of world trade should be large Whether, in the face of known developments abroad, it will be large enough is an open question.

It is probably wiser to project American policy toward international business agreements on the basis of certain assumptions: (1) that state import and export monopolies will be

both more numerous and more extensive in the postwar than in the prewar period, (2) that a greater proportion of foreign trade will be conducted by state-supervised import and export associations; (3) that domestic trade in most foreign countries, insofar as it is private, will be heavily cartelized; (4) that international commodity and cartel agreements among exclusively producer interests will not be completely avoided by an international economic organization; and (5) that quantitative import controls will continue to exist for a long time after the war.

This seemingly pessimistic projection is not, nevertheless, entirely incompatible with a relatively large area of international agreement on foreign economic policy. It is, however, incompatible with anything like over-all world economic planning or over-all elimination of the barriers to free private trading. A realistic approach, therefore, demands that we discuss American policy toward international business agreements within the framework of a world trade organization in which the trading units are increasingly state owned or controlled, and from which trade restrictions both public and private are by no means excluded

B AMERICAN EXPORT ASSOCIATIONS

Some 125 American export associations, comprising upward of 2,000 firms, have been organized under the Webb-Pomerene law since its passage in 1918. The mortality among them has, however, been high, and not more than 50 continue in existence at the present time. The recent antitrust complaint against the Alkali Associations and their member firms, and the current Federal Trade Commission investigation of the Phosphate Associations, have opened various export association activities to question. The likelihood, in fact, that further complaints and investigations are pending may well discourage the organization of new associations for foreign trading. At the same time, it seems probable that postwar

trade conditions will make it highly desirable for export firms to have the advantages of such association

The sentiment that produced the Webb-Pomerene law was clearly that small American exporters were handicapped both in competing with foreign cartels and combines and with powerful American rivals, and in competing with each other for sales to foreign buying combinations and syndicates. The Federal Trade Commission argument for export associations was definitely a "small business" argument.[1] Since 1918, the relative importance of the small firm in American export trade has markedly diminished. The size and character of the trading units with which our firms compete and to which they sell abroad have likewise changed. Today, the arguments pro and con export associations are rather different from those which marked Congressional debate on the Webb-Pomerene law.

Although many small firms—as in the lumber and dried fruit industries—have been organized into export associations, other American associations—in copper, steel, oil and chemicals—have included many firms quite adequate in size to meet large-scale competition abroad. On the other hand, the kind of foreign competition that now has to be met includes not only cartels and combines but numerous state export monopolies and state-sponsored export associations. In post-war trading, our export associations will confront buyers organized in state import monopolies and large-scale syndicates, both public and private.

The Webb-Pomerene law exempts an export association

[1] *Report on Cooperation in American Export Trade,* U S Federal Trade Commission, Government Printing Office, Washington, D C, 1916. *Cf*, pp 4–7. After discussing foreign cartels and combines,

> It is against such organizations as these, uniting powerful groups of foreign concerns, backed by great banks, aided by railway and ship lines, and assisted by foreign governments, that hundreds of comparatively small American manufacturers and producers must compete if they engage in export trade. Moreover, in some industries such small manufacturers must also compete abroad with great American companies having most efficient world-wide selling organizations

from the application of the Sherman Act, provided the activities of such an association do not: (1) restrain trade within the United States; (2) restrain the export trade of any domestic competitor or association; or (3) enhance or depress prices within the United States, substantially lessen competition with the United States or otherwise restrain trade therein.[1]

Enforcement of the Webb Act, within the context of the antitrust laws, presents some difficult and complex problems. No other country, so far as is known, attempts to differentiate legally between an association of producers limiting competition among themselves in the domestic market and an association, perhaps of the same producers, limiting competition among themselves in export sales. In most countries, of course, such associations are legal both in domestic and foreign trade. Since the enforcement of the Act to date has been honored chiefly in the breach, some of the more perplexing issues involved are only now coming to light. They are so extensively revealed in the present complaint against the Alkali Associations that this will probably be one of the most important antitrust cases in recent years

It is charged that competition among members of the Alkali Associations in the domestic market was restrained, that the access to foreign markets of American firms outside the associations was restrained, and that the associations, in agreements with foreign firms, limited imports into the United States.[2] All of these activities, assuming the charges to be correct, are clearly illegal. The complaint goes further, however, and calls in question the fixing of prices on export sales, agreements with foreign firms allocating markets and quotas in foreign territory, and price policies of the associations as they affected export sales of independent American companies.

[1] Wendell Berge, in a speech before the Commerce and Industry Association of New York, May 2, 1944, "Export Associations and the Sherman Act," gives an excellent interpretation of the nature of the Webb Act exemption.

[2] Complaint filed Mar. 16, 1944, Southern District of New York.

Whether American firms or export associations should be allowed to enter into agreements with foreign firms and associations to limit competition in foreign markets is discussed in the next section. Here we are concerned primarily with association activities designed to limit competition among members on export sales. Since there has been to date no comprehensive adjudication under the Webb Act, it is impossible to speak of its meaning with authority. It seems to the author, however, that if the Act means anything at all, it exempts export associations from the provisions of the Sherman Act prohibiting agreements among firms to restrict their competition on foreign sales—even though they may establish central sales agencies, fix prices and regulate among themselves other conditions of export. Since the purpose of the Act was to enable export associations to present a common front to foreign competitors and foreign buyers, not to allow such a self-limitation of competition would appear to defeat the purpose of the Act. It is upon this interpretation, therefore, that the merits and demerits of export associations will be discussed.[1]

The power to fix prices means, of course, the power to alter prices, *i.e.*, an export association may establish a price policy, but it could not, without violating the Act, include price discrimination in foreign markets for the purpose or with the effect of driving independent American exporters out of these

[1] If it is the contention of the government that the Webb Act frees associations from some of the limitations of the Sherman Act but not from others, it is hard to see where such a line could be drawn. The Act was, to be sure, designed to promote exports, but to promote them within an international market in which the associations' competitors and purchasers were not restrained by those antitrust limitations that presumably make association of sellers in the domestic market unnecessary. If these competitors and purchasers are free of antitrust limitations, what limitations can be maintained on the self-regulation of our own export associations, while remaining within the logic of the Act? The provision in the Act that export association activities must not "restrain the export trade of the United States," presents, it is true, difficulties of interpretation. If, however, the logic of the Act is as stated, the "export trade" in question can only mean the trade of firms outside the association.

markets Although the enforcement of the Act against such an association practice might be difficult, the principle involved is the same as in domestic trade.

If, as is sometimes said, a self-limitation of competition among exporters must of necessity restrain domestic trade and the trade of competitors outside the association, it might be argued that our paramount interest in domestic competition requires an elimination of export associations, even though we should thereby be somewhat disadvantaged in foreign markets On the other hand, there are strong business pressures for an increase in the permitted scope of export association activities, despite any consequent lessening of competition in the domestic market. The pursuit of either objective would require a modification of the Webb-Pomerene law, though in opposite directions

The first opinion holds that business men cannot very well associate in order to limit competition among themselves for exports without their competition for domestic business being affected. Since the value of our exports rarely exceeds 7 or 8 per cent of the value of our total production, it is claimed that any gain in exports achieved by association is apt to be heavily outweighed by the loss of competitive vigor in the home market. If all domestic producers were exporters and all export firms were domestic sellers, this would probably be a defensible argument. There may be some merit in it in any case, but hardly enough to justify the abolition of export associations. If the argument is to be taken literally, we should probably do well to prohibit business association even for "merriment" since, as Adam Smith long ago observed, such convocations are rarely held without detriment to competition Until a serious attempt is made to inspect Webb-Pomerene associations, however, it is by no means clear that such associations cannot be held to self-limitation of competition in export markets.

One suggestion for curbing export associations is to permit only those that are demonstrably needed to carry on effective

competition with foreign cartels and combines. This proposal reverts to the original Webb-Pomerene arguments, but the organization of world trade has since substantially changed. The Soviet Union, which has been of little influence in world trade to date, appears likely, through her state trusts and purchasing missions, to be a large purchaser in world markets for some time to come. The postwar requirements of many other European countries will undoubtedly be made known by purchasing missions shopping around for the cheapest market. The economic reorganization of these nations, which will almost certainly call for a larger measure of government ownership and supervision, will carry with it a corresponding increase in the scope of state importing and exporting monopolies.[1]

Under these circumstances it is the author's view that export associations, viewed solely as devices for limiting competition in exports among the member firms, can serve a large and useful function in promoting American export trade and should be encouraged, that the requirements for membership should not exclude any legitimate export enterprises in the industry, but that the associations should not be required to make their

[1] Although the U S Department of Justice foresees a smaller role for export associations and a larger area of free competition in international trade than the author of this report thinks probable, there has been no official suggestion from the Department that the scope of Webb Act associations be reduced by legislation

Cf Speech by Wendell Berge, *op cit*,

I think that so long as the conditions which gave rise to the Webb Act still exist, the Act, if properly employed, may be useful in promoting trade within the special and limited domain to which the Act applies To meet centralized buying by centralized selling, and to stand up against the exclusionary tactics and monopolistic practices of well-established foreign cartels is sometimes necessary. Joint action by American exporters may serve to secure an equal footing in foreign trade in markets where combination is permitted or even encouraged No doubt such retaliatory measures are wasteful as ways of organizing world trade, and, no doubt, we and other nations would be better advised to join hands in getting rid of international trade restraints, theirs and ours alike Meanwhile, however, the Webb Act has a use in defending American interests in markets which are too often cartelized

facilities available to outside firms who cannot meet the conditions of membership.[1]

To achieve these ends, no change in the Webb-Pomerene law would appear to be necessary, but a considerable period of adjudication will obviously be required to establish an authoritative meaning of the Act. Since any modification of it would have to go through a similar testing process, this time interval, in the light of our present ignorance of the future structure of world trade, leads the author to oppose any attempt to recast our legislation on export associations now. When the postwar structure of world trade becomes clearer, we may have to undertake a considerable revision of both our conceptions of and our institutions engaged in foreign trade. Meanwhile, it is highly desirable that the Federal Trade Commission investigate more fully the structure and operations of export associations, and the Commission is, in fact, taking steps toward this end.

At the same time, and with different ends in view, business groups are pressing for relaxation of the antitrust laws. It is held that (1) in order to continue selling in foreign markets, export associations may find it necessary to enter into agreements limiting competition in those markets and (2) export associations may serve an American interest broader than the preservation of competition, by agreements that limit imports into the United States. Both opinions apply to business agreements that involve individual firms as well as export associations and are consequently greater in scope than the association activities discussed thus far. To a consideration of these two views we now turn.

[1]Apparently, the right of an export association to exclude an outside firm from the use of its facilities was called in question by the Federal Trade Commission in the Pacific Forest Industries case (known as the plywood case) on Jan 27, 1940 In this case the association was required to fill any orders for export received by firms outside the association. An extension of this ruling would apparently permit any firms, whether regularly engaged in export or not, to utilize the facilities of an export association, if it existed in the industry, to fill its export orders. Such an interpretation seems highly undesirable.

C AMERICAN PARTICIPATION IN FOREIGN CARTEL ARRANGEMENTS

We are concerned here with business agreements entered into by American firms (or their subsidiaries and affiliates) and export associations to regulate sales in foreign territory. We shall postpone to the next section agreements by which the participants directly limit imports into the United States or the exports of nonparticipating American firms. Such a clear-cut demarcation between agreements limited and not limited to foreign territory is, of course, difficult to reconcile with experience. The task of determining the extent to which an agreement ostensibly limited to foreign trade actually affects competition within the United States is extremely troublesome and accounts for much ambiguity in policy recommendation. It is possible, nevertheless, to approach the problem by considering the various classes of foreign-trade agreements.

American participation in market-regulating arrangements in foreign territory is not effected principally through export associations but by way of foreign subsidiaries and affiliates of American firms. As we have seen, the imposition and increase of trade barriers, by hampering exports from the United States, have frequently led to establishment abroad of American branch plants or to negotiation of subsidiary and affiliate arrangements. In selling their products, these subsidiaries have customarily been governed by the prevailing local practices and so have rather frequently entered into cartel arrangements both domestic and international.

As an example, consider the participation, through subsidiaries, of two of the leading American rubber companies in the price-fixing agreement in the British rubber industry. This agreement, which covers the thirteen principal producers of rubber products in England, including the two American-owned subsidiaries, fixes the whole price structure on the domestic sales of tires and other products. Price cutting by any of the participating firms would not only provoke re-

taliation but would endanger the price cutter's access to distribution channels throughout the British market. No legal obstacle prevents the entry of other American firms, but, if a new concern attempted to break into the market by underselling members of the association, it would most certainly have hard sledding

Similar domestic market-regulating agreements exist not only in England but in many other countries and are habitually entered into by American subsidiaries domiciled in these countries. The oil agreement covering the sale of white products in Great Britain fixes quotas for the producers; as a party to it, the principal American firm dealing in such products in Britain has enjoyed a large quota [1] White products are distributed through privately owned filling stations, organized in a tight association. The individual stations have long-term contracts with the principal producers, so that the entry of a new American firm into the British market would depend largely on its ability to secure contracts with the existing distributors. Any attempt to build up a new chain of filling stations would be met with active resistance from both organized producers and organized distributors

Sometimes sales in a foreign market are conditioned upon acceptance of a quota assigned by a government or by a government-supervised association. This type of arrangement is particularly frequent in the oil industry.[2] Here an American firm's acceptance of a quota may well exclude a potential American competitor from the market, but it is difficult to

[1] In this case the American-owned firm is an importer as well as a refiner and distributor. The acceptance of a quota clearly may directly affect American exports to Britain.

[2] *Cf* Frederick Haussmann, "World Oil Control, Past and Future An Alternative to 'International Cartelization' ", *Social Research*, Vol IX, No 3 (September, 1942); D. M. Phelps, "Petroleum Regulation in South America," *American Economic Review*, Vol. XXIV, No 1, Part 1 (March, 1939), also Hearing before a Subcommittee of the Committee on the Judiciary, U. S Senate, 78th Congress, 2d Session, testimony of Ralph W Gallagher, President of the Standard Oil Company (N J.), May 23, 1944. This subcommittee is known as the O'Mahoney Committee.

see an alternative other than complete American withdrawal from the market.

Subsidiaries and affiliates of American firms operating abroad have participated not only in domestic cartels but also in international cartel arrangements, whenever these have been the rule among their principal foreign competitors. If cartel arrangements are limited to areas in which such agreements are tolerated, approved or even imposed, and in which there are local sources of supply of the regulated commodities, there seems no reason for us to object to our nationals' participation. At best, it would be difficult to exercise an extraterritorial jurisdiction; at worst, it would involve a serious interference with business practices customary abroad. To prevent American firms from entering such arrangements would adversely affect our exports and foreign business interests without affording foreign consumer interests any greater protection—assuming, of course, that we wished to. Nor are competitive conditions within the United States likely to be affected to any degree by any change in policy. There seems, in fact, no reason to believe that foreign-trade agreements of this type should, or would, be held illegal under the antitrust acts.

A different problem is created by American participation in agreements with foreign firms or associations to fix prices or otherwise limit competition in third-country markets or to divide the markets between them. In 1933, for example, the Phosphate Associations entered into an agreement with North African producers that assigned to Americans 16 per cent of the European market and to North Africans the remaining 84 per cent. As a result, the American producers realized much higher prices on their European than on their domestic sales. A series of subsequent agreements brought into the cartel most of the phosphate producers of the world. There is more than a suspicion that these agreements substantially limited competition in the domestic market.

The Sulphur Export Association has consummated similar

agreements with foreign producers, chiefly Italian, to regulate sales abroad. In this case the volume of American production and exports may probably be taken to indicate that sulphur imports into the United States would have been slight, with or without the agreement In the Alkali complaint it is charged that, under agreements between the American associations, Imperial Chemical Industries, I.G. Farben and Belgian Solvay, Solvay was assigned the continent of Europe—except for the Scandinavian countries reserved for I.G. Farben—and that most of the rest of the world was divided between the American participants and ICI.[1]

Competition has sometimes been limited in third-country markets through establishment of jointly owned subsidiaries by the principal competitors. The Duperial companies, for example, that trade in various Latin American countries, are jointly owned by du Pont and ICI International patent and processes agreements have been particularly prolific in provisions limiting competition in third-country markets.

The Federal Trade Commission's view appears to be that participation by export associations in agreements with foreign interests to limit competition between them in third countries is permissible under the Webb Act. On the other hand, it is certainly the view of the Antitrust Division that participation in such agreements either by export firms or associations is illegal under the Sherman Act. The complaint against ICI charges that joint ownership of the Duperial companies, mentioned above, is a violation of the Sherman Act, although its effect on American domestic trade or on the exports of other American firms is clearly remote. This question of the legality of the limitation of competition in third-country markets, by agreement or joint ownership, is one of the most unclear of all issues involved in international business agreements.

The solution could and should be sought through international agreement on cartel policy, since nothing short of such

[1] *Op. cit.*

agreement is likely to produce remedial action. Regardless of international action, however, it should be the policy of the United States to prevent its nationals from entering into agreements with foreign firms or associations to limit competition in third countries or to divide world markets. Although such agreements need not inevitably limit imports into the United States, and thus injure domestic competition, they have a decided tendency to produce this effect. These agreements, moreover, may often adversely affect the interests of third countries whose markets are controlled, particularly if there are no local sources of supply; here we have a political if not an economic interest to safeguard. Finally, participation of American firms in such agreements is not necessary to "meet competition." Although the profits on exports may frequently be increased by such restraints, the volume of exports must be even more frequently diminished Our employment interest in volume is distinctly more important than our profit interest in prices.

In other words, a distinction needs to be made between the participation of American subsidiaries and affiliates in local cartel arrangements, such as the British rubber manufactures agreement, and their participation in international agreements designed, as in the Alkali Associations, to limit competition in third countries or to divide world markets. The former is and should be governed by the law and practices of the area affected; the latter may and, in the absence of international agreement, should be prevented by our own action.

The participation of American subsidiaries and affiliates in foreign cartel arrangements may, in effect, permit the parent or affiliate companies in the United States—without subscribing to the agreement—to share in a division of world markets and to restrict competitive imports. It is alleged, for instance, that the cartel participation of Aluminum Limited of Canada, affiliated through common ownership with the Aluminum Company of America, fixes the volume of aluminum exports from and imports into the United States. Resort to affiliates

and subsidiaries will quite possibly be attempted on an even larger scale if we prevent our firms and associations from participating in international market-sharing agreements. Again, a better solution should be found through international agreement on cartel policy. If this proves impractical we should take suitable action ourselves, though in relationships as complex as these the problem of proving cartel participation is extremely difficult.

D THE LIMITATION OF DOMESTIC COMPETITION BY INTERNATIONAL BUSINESS AGREEMENT

The principal potential advantage to American participants in an international cartel is alleged to lie in the protection that may be afforded them in the domestic market. Foreign members agree not to export to the United States on condition that American members limit their sales abroad. Such an agreement, of course, affects competition in the domestic market directly and perhaps seriously. Furthermore, if other American exporters remain outside the agreement, foreign cartel members may insist that they either be brought into line or stifled.

Preservation of competition in the domestic market, however, is not our only national concern, and in many areas the United States has shown no great enthusiasm in maintaining competition at home. Protective tariffs have far outweighed cartel arrangements in the damage they have inflicted on domestic competition. In both our main agricultural products and in the labor market we have rather lightly abandoned competition. The coal industry has, over a period, been exempted from its rigors; the oil industry operates under domestic pro-rationing; competition is controlled in the principal milksheds; and the Sherman Act has been modified to permit resale price maintenance. In recent years, in fact, competition has taken a beating all along the line.

It is also argued that other national interests, perhaps more important than domestic competition, may be forwarded by

government-approved cartel participation. Foreign governments quite obviously regard cartel participation by their nationals as a useful device for promoting national interests; why shouldn't the United States?

Well-developed plans have been advanced recently, proposing new standards of legality for agreements in international trade, the registration of agreements and their advance clearance by an administrative agency. The plan suggested by the National Foreign Trade Council is the most comprehensive and merits particular attention.[1] It proposes legislation that would

1. Require registration with the agency charged with foreign economic policy of agreements "of a type and importance which bear upon the formulation of our foreign economic policy or unreasonable restraint of trade in the United States."
2. Establish standards of reasonableness for business agreements in international trade different from the standards applied to such agreements in domestic trade
3. Authorize advance but revocable clearance of foreign-trade agreements by a designated agency, preferably the U.S. Department of State.

The question of advance administrative clearance of business

[1] *Memorandum on Regulatory Measures Affecting American Foreign Trade*, National Foreign Trade Council, Inc , New York, 1944. A very similar proposal is advocated by Milo Perkins in an able article in *Harper's Magazine*, Vol. 189, Serial No 1134, (November, 1944), entitled "Cartels What Shall We Do About Them?" On pp 576 and 577 Perkins recommends

(1) Registration of cartel agreements with the State Department (2) Review (with power to approve or disapprove) of the registered agreements by an Interdepartmental Board chairmanned by the State Department The enabling legislation establishing this Board should set up broad principles to guide it in its decisions as to approving or disapproving cartel arrangements These principles should include consideration of (*a*) our military security, (*b*) our foreign policy; (*c*) the effect of any agreement on the volume of our international trade; (*d*) the effect of any agreement on sales, prices, the volume and costs of production, and the status of labor in the industry making the application, and (*e*) the effect of the agreement on our domestic economy. (3) Review, by the Board, of International Commodity Agreements

plans will be considered later on its own merits. Our immediate concern is to determine whether international business agreements are so different from domestic business agreements as to justify application to them of a different standard of legality and reasonableness.

Insofar as foreign-trade agreements do not unreasonably restrain competition in the United States or limit the access to foreign markets of American exporters not parties to the agreement, a different standard is already manifest in existing legislation. Specifically, shall we go further and attempt to implement American foreign policy by international business agreements that do restrain domestic trade? As a corollary we should have to ask whether there are any American policies that can be better promoted by these than by any other arrangements.

Without attempting to answer either question directly, the National Foreign Trade Council suggests a number of criteria for judging the reasonableness of international business agreements:

> They would include, for example, the interests of national security, conformity with the international engagements of the United States, respect for the policy and laws of other nations which may govern or affect the particular agreement and the general objective of promotion of foreign trade and business of the United States in a manner conducive to or not inconsistent with the promotion of world trade and business, with due consideration to the degree of cooperation evidenced by the foreign nation or nations involved These factors would be the basis for formulation of our national foreign economic policy which in turn would govern the determination of the reasonableness of any potential or actual restraint of trade within the United States.[1]

Apart from the obvious difficulty of writing such standards into enforceable legislation, there remains the more immediate need to determine which of these interests would be served by international agreements—now illegal under the

[1] *Op cit*, pp 21, 22

antitrust acts—restraining domestic trade or the access to foreign markets of nonsubscribing American firms. Would they further our interest in "security," in honoring our "engagements," in respecting "the policy and laws of other nations," or in promoting our foreign trade and business? It would be easy to show how various of the interests mentioned have been *injured* by international agreements restraining domestic trade, but difficult to produce instances in which they have been *furthered* by such agreements. Surely "respect for the policy and laws of other nations" does not require that we permit American firms to enter international agreements restricting imports into the United States, however desirable such action might appear to certain elements in other countries

Many of the issues underlying the Council's proposals clearly have to do with American participation in foreign cartel agreements that *do not* limit imports into the American market and affect American competition only indirectly and slightly. It would be the author's view that such participation does not violate the antitrust acts, but not until a substantial number of cases have been brought in this unadjudicated area will it be possible to know the precise limits of permissible action. Clarification of these issues cannot, however, be expected from new legislation, which would confront the same judicial processes as face the Sherman Act in the foreign field. The defining of Sherman Act limitations could be greatly accelerated by stipulating the facts in a series of cases and asking for judicial determination, but it seems doubtful whether adoption of the standards suggested by the Council, or of any similar set of conditions, would broaden the area of permissible business agreements in international trade.

That international cartel participation *could* be used as an instrument of foreign policy there is no question. Protection of a domestic industry might be accomplished as readily by cartel agreement as by a protective tariff. Exports might, on occasion, be expanded by throwing the weight and prestige of

the American government behind the demands of our exporters for a larger quota in a cartel agreement. The government's judicious handling of American participation in patents and processes agreements might be used to withhold from other countries processes of military significance and acquire from abroad such processes for our own use. It might also be feasible, through American cartel connections, to exert pressure on other governments and thus add to our repertoire of foreign-policy devices. It would be possible to make cartel participation serve all these ends, but not without a radical change in the existing relation of government to business in the United States, and not without converting our export policy into a kind of commercial imperialism.[1] Postwar security developments and changes in the structure of world trade may force us in this direction, but it seems highly un-

[1] Consideration of the events leading up to the suggested Anglo-American Oil Agreement is illuminating in this connection. Substantial interests in the oil industry foresaw the advisability of international business agreements relating to oil sponsored and supervised by governments *Cf*, *A Foreign Oil Policy for the United States*, prepared by the Foreign Operations Committee of the American Petroleum Industry, Nov 5, 1943 It was largely industry influence that led the American government to participate in oil discussions with the British government Out of these discussions came the proposal that all countries interested in the petroleum trade be invited to enter into an International Petroleum Agreement establishing a permanent International Petroleum Council.

Although the principles suggested for the development, under international agreement, of the world petroleum industry were most general and unexceptional and closely resemble the recommendations on oil policy in the industry statement mentioned above, the industry, on second thought, found them portentous and disturbing Consequently, the Petroleum Industry War Council, in a resolution reported Dec. 11, 1944 (*cf*. *The New York Times* of that date) called upon the Senate to reject the proposed Agreement Oddly enough, among the reasons cited is that the Agreement would "legalize cartels" A proper oil policy for the United States would be, according to the Council, for the government to give to its nationals

. . necessary and legitimate diplomatic support in their foreign oil operations and [to foster] the private enterprise of its nationals so engaged In addition, the resolution recommended that the Government directly and indirectly not engage in foreign oil operations and that there be created an international instrument of consultation and collaboration, without power of enforcement, in which there is joint government-industry representation

desirable to alter our national policy until we are compelled to For the present it seems to the author that a reasonable interpretation of the Sherman Act, with the Webb-Pomerene exemption, gives American exporters all the leeway they need for effective participation in postwar foreign trade.

E ADVANCE CLEARANCE OF PROPOSED INTERNATIONAL BUSINESS AGREEMENTS

Along with its recommended legislative standards, the National Foreign Trade Council proposes the advance clearance of foreign-trade agreements by an administrative agency, preferably the U S. Department of State. A proposed or existing agreement could be disapproved only "on the ground that it constitutes an unreasonable restraint of trade, not justified in the light of applicable foreign laws and conditions or by our foreign economic policy."[1] At any time during the life of an agreement the clearance agency could, after hearings and a finding that unreasonable restraint of trade did exist, order a change in the agreement or in the practices agreed. "Only upon failure to amend the agreement or the practices after a reasonable opportunity to do so could proceedings be initiated under the antitrust laws."[2]

The argument that the very uncertainty of the law relating to business agreements makes advisable the advance clearance of proposed business plans is, of course, an old one. Intermittent agitation for advance clearance by the U.S. Department of Justice of business plans in domestic trade dates back at least to 1910, but, since it has never shown signs of productive results, the issue must properly be judged dead The

[1] *Memorandum on Regulatory Measures Affecting American Foreign Trade*, p 25

[2] National Foreign Trade Council, *ibid*, p 22 In his Harper's article, *op cit*, p 576, Milo Perkins suggests that hearings before the review board, there proposed, might be requested by (*a*) The Department of Justice if it fears a violation of the antitrust laws within the United States (*b*) The American corporation which has filed the agreement, and which wants a yes or no answer so that it can do its business with dispatch (*c*) Any interested business firm not a party to the cartel agreement but presumably within the same industry, and therefore vitally affected

basic reason for rejection has always been the impossibility, in borderline cases, of determining in advance the reasonableness of a plan when the test of reasonableness depends ultimately on its effects in the special circumstances governing a particular industry. Of course, the validity of a judgment on whether or not a business plan is likely to involve a restraint of trade depends on the amount of information disclosed. Since it is never possible for industry to acquire in advance all the relevant information, and never possible for government officials to know whether industry has disclosed all the available information, complaints of unreasonable restraint of trade brought later against agreements already cleared are bound to provoke recrimination and charges of bad faith.

Are the issues likely to be sufficiently different in postwar foreign trade to justify a procedure consistently rejected for domestic trade? Proponents contend that (1) the area in which the antitrust acts might be applied is much more indeterminate in foreign than in domestic trade and (2) because of foreign policy considerations, business firms will sometimes find themselves urged by one government department to take action forbidden by laws enforced by another.

1. Application of the antitrust acts in foreign trade is certainly far from being clearly defined. The principal reason, of course, is that international business agreements and Webb-Pomerene activities, long unchallenged by enforcement authorities, are now subject to active prosecution and investigation by both the Antitrust Division and the Federal Trade Commission. Several years of active adjudication will be necessary before the law regarding foreign-trade practices is as well established as that effecting domestic-trade practice.

The element of uncertainty, however, can be and is exaggerated. There can be no doubt that many recent international business agreements restricting imports into the United States are illegal. As has sometimes been the case in domestic trade, the suspicion cannot be avoided that what is really complained of is the certainty rather than the uncer-

tainty of the applicability of the rules The principal undefined area is that involving participation by American firms and export associations in agreements restraining trade in foreign areas.

There is, moreover, machinery already available for clearing up ambiguities, and for mitigating penalties for unintended violation. By advance disclosure of plans to the U S Department of Justice, firms and associations can avoid at least criminal prosecution, while stipulation of the facts in a few basic issues can facilitate the process of judicial interpretation

Nothing, in short, is to be gained by a revision of the antitrust acts introducing new standards of reasonableness applicable to international trade, themselves subject to judicial interpretation Pending such interpretation, government officials would be as much in doubt as anyone, and, bearing the responsibility of advance clearance, would be likely to construe what is permissible under business agreement rather narrowly If antitrust sentiment were something less than bone and sinew of the American *mores*, advance approval of foreign-trade plans might be lightly entrusted to administrative ruling Under existing circumstances, however, this procedure would probably only clog the wheels of foreign trade.

2. In favor of advance clearance it is argued that international business agreements are sometimes urged for reasons of public policy by a government department concerned with foreign activities But if American firms are not protected against later prosecution under the antitrust laws, they will be loath to undertake such agreements no matter how urgent the public policy In the 1920's the U.S. Department of State fostered oil arrangements in the Middle East that might possibly not meet present-day tests of what is "permissible" restraint of trade. In promoting exports of material required for rehabilitation of war-devastated areas, government agencies might find needful a measure of business solidarity exceeding the limits set by current antitrust standards.

Not advance clearance but a change in the standards of

permissible agreements is the real issue here. Advance clearance would be chiefly useful in facilitating emergency arrangements under the new standards. If the issues involving public policy are limited to a particular area, legislation excepting this area from the application of the antitrust acts would appear to be appropriate. Should the United States participate in an international oil agreement regulating foreign trade in oil, which seems unlikely, it would presumably take some such action. If the issues are of an emergency character requiring not only temporary suspension of the antitrust acts but advance clearance, the course to follow may be the wartime arrangement whereby the Secretary of War or the Secretary of the Navy would certify that a business plan was necessary to the war program, and that certification was accepted by the U.S. Department of Justice as precluding the enforcement of the antitrust acts against the participating firms.

While an emergency might conceivably justify the temporary abandonment of antitrust standards as applied to international business agreements, it seems improbable that any such emergency lies immediately ahead. In the situation outlined above, export associations are likely to be able to meet any normal demands in foreign trade. The procedures suggested here to meet special cases fall far short, nevertheless, of the National Foreign Trade Council's proposed program.

F PATENTS AND PROCESSES AGREEMENTS

The exchange or conveyance of patent rights and technical know-how may be the basis for any one of the various types of restrictive international business agreements discussed in this chapter. American subsidiaries in foreign territories may participate in domestic technical data agreements that regulate sales in a local market. Our firms may participate with foreign firms in patents and processes arrangements that limit competition in third countries and divide world markets. All these agreements may be and are used to restrict imports

into the United States. In fact, for highly fabricated and specialized products, the patents and processes agreement is the typical international arrangement

In the previous chapter, two possible lines of remedial action were suggested for international agreements (1) registration of patents and processes agreements and the interchange among governments of the information made available, which together might lead to a multilateral modification of patent policy directed toward curbing the more restrictive practices; and (2) the exchange of research results among government-supported laboratories and research foundations, which might lead to a wider dissemination and freer use of industrial technology.

To date, government activity in the field of American industrial technology has been pretty much limited to the war years. Successful termination of the recent war has, however, found our government, as represented by the Alien Property Custodian, in possession of a large number of enemy-owned patents. It will, furthermore, be possible and advisable to gain access to industrial technology developed during the war in enemy countries. Government ownership of the patentable techniques acquired, nonexclusive licensing to its nationals, and free exchange among the United Nations would appear to be highly desirable and might go far toward decreasing limitations on the use of technology in the rapidly developing synthetic-fibers, oil, rubber and plastics industries. If this opportunity is to be successfully exploited, the government probably should establish its own research agencies in at least some fields

Although international action along lines suggested in Chap. II might help to free international technological exchange from its present restrictions, its effectiveness would obviously be limited. Furthermore, it must be reemphasized that the highly desirable exchange of research results and technical know-how between nationals in different countries may involve a considerable limitation of competition among

them not only in their own but in third countries. This will have to be accepted along with the benefits of the technical interchange.

Insofar as patent rights are conveyed or exchanged, it is within the competence of the government concerned to modify these rights by changes in its national patent policy. The international aspects of patent policy are overshadowed by the domestic. It seems probable that the conditions under which American patents are granted should be the same for domestic applicants as for foreign. What these conditions are must be determined primarily by domestic considerations. It is possible, however, and desirable, to prevent an American patent holder from licensing foreign patents owned by him under conditions that limit exports to the United States. Here again considerations relevant to domestic patent policy should probably govern action in the foreign field. If it is desirable to give the American purchaser the benefit of competition in the sale of a licensed article in domestic trade it would seem desirable to take such action as may be necessary to accomplish the same result in foreign trade.

The most common rights inherent in international patent exchange or conveyance are restrictions on area of sale and field of use. The first point at issue is, then, how an international exchange of technology would be affected by a domestic modification of these rights. If American firms are prevented from acquiring patents subject to such restrictions, will foreign owners continue to seek patents in the United States or to license them to American users? Specifically would I.G. Farben license an American firm to use a Farben-owned patent if it could not prevent the user from exporting his products to Germany, where they would compete with those I.G. Farben? The alternatives open to the German company, if it wanted to avoid American competition in the German market, would be (1) not to patent its process in the United States or (2) to take out the patent but to refuse to license an American user.

By following the first course it could not prevent American firms from experimentation that might lead to the discovery of the same or a similar process and to the appearance in world markets of important American competitors. Such a refusal to patent would also deprive the German company of any gains that would accrue from working or licensing in the United States. In these circumstances the German company might well choose the second alternative. I.G. Farben could apply for the patent and work it through a subsidiary, enjoined from exporting to Germany. Or, if this were impracticable, the German firm could patent the process, limiting American experimentation in this field, but refuse to license and thereby protect itself against possible imports into Germany. A refusal to work or license could, of course, be stopped by domestic legislation to establish compulsory licensing with or without a showing of patent abuse. Such legislation would, no doubt, be precipitated by any widespread refusal of foreign owners to work or license their American patents.

On the whole, a considerable reduction in the restrictive rights adhering to patents could probably be accomplished by domestic legislation without lessening appreciably foreign applications for patents in the United States. It might, however, lead to the working of these patents by foreign-owned subsidiaries rather than by American licensees, and in that way might considerably restrict the flow of technical know-how without which patents are frequently unworkable. This loss would have to be balanced against the gain that would follow from a wider use of the technology that continued to flow to the United States.

A consideration of domestic patent reform lies outside both the scope of this report and the author's competence. It is worth noting, however, that the present magnificent confusion surrounding American patent law and policy serves to cloak American participation in international patents and processes agreements with an aura of profound ambiguity.

In the present situation it is often difficult for a man to know (1) whether he has a patent, (2) if so, what rights he enjoys under it and (3) how long and under what conditions the rights may be assumed to endure.

Although the Bureau of Patents, moved doubtless by recent revelations of abuses, is applying increasingly rigorous standards to patent applications, a marked cleavage still exists between patent rights granted by the Bureau and rights that the courts will protect from infringement.[1] In consequence a firm may sometimes be at a loss to know when it has a patent and when it has merely a piece of paper. If we accept the very interesting views of Justice Arnold, expressed in the recent decisions in *Potts v. Coe*,[2] and *Special Equipment Company v. Coe*,[3] then either the cleavage will widen, or the Bureau will have to revise its standards.

It has been ruled that a patentee may not attach to a license conditions that would increase his monopoly or permit him to acquire other monopoly powers not granted by the patent.[4]

[1] Report of the National Patent Planning Commission, p 5·

There is an ever widening gulf between the decisions of the Patent Office in granting patents and decisions of the courts who pass upon this validity It would be highly desirable and a great step forward if patents could be issued with a greater assurance that their validity would be upheld by the courts

[2] 140 F. 2d 470 After an illuminating discussion of corporate research, the judgment in this case continues,

In other words, patents are not intended as a reward for a highly skilled scientist who completes the final step in a technique, standing on the shoulders of others who have gone before him By the same token they are not intended as a reward for the collective achievement of a corporate research organization . To give patents for such routine experimentation on a vast scale is to use the patent law to reward capital investment, and create monopolies for corporate organizers instead of men of inventive genius. . . . This is not to say that an employee of a great research laboratory may not make an invention [But to receive a patent would require the presentation of evidence onl the level of the art in that research organization at the time the application is made This principle simply emphasizes the importance of individual achievement, which is the aim of the patent law

[3] 13 *U S Law Week* 2010

[4] *Cf. Ethyl Gasoline Corp. et al , v U S* , 309 U S 436 Opinion of Stone C J at p 456

foreign markets of all American exporters. The advantages of foreign trade are not to be understood in terms of maximum profit per unit but rather in terms of the total volume of exports and imports Our policy, it is true, must be adapted to the organization of world trade as it develops in the postwar years, but the influence of the United States on the very organization of that trade may, if properly used, be considerable.

A clear line between legal and illegal participation, as deduced from judicial interpretation of the antitrust acts, may, it is hoped, permit international business agreements that will forward American foreign-trade and business interests in the direction suggested above. Specifically, this would mean·

1. That export associations be permitted to take such action as may be necessary to present a common front to foreign competitors or foreign buyers.

2 That American associations, firms, and their subsidiaries or affiliates abroad may legally participate in domestic or international cartel arrangements not affecting American imports or the exports of competing American firms.

3. That American export firms and associations may *not* legally participate in international business agreements restricting exports to third countries or dividing world markets.

4. That participation in agreements that limit imports into the United States is clearly illegal.

5. That American participation in international patents and processes agreements is illegal only if the parties attempt so to enlarge the monopoly rights exchanged as to restrain trade.

The scope of patents rights exchanged might be further contracted by judicial interpretation and by domestic legislation here and elsewhere.

It must be recognized that the categories of international business agreements suggested above give only a partial indication of the range of variation possible within them, and that the effect of American participation on domestic competition and on foreign trade is difficult to appraise apart from the

particular circumstances of each case Since judicial interpretation of the antitrust acts in foreign trade is only now under way, the knowledge of what is and what is not permissible is very limited, and there is no denying that this element of uncertainty will, for some time, act as a deterrent on American trade and foreign investment.

It seems improbable, however, that legislative changes would accelerate clarification, since new standards would have to undergo the same process of judicial testing. Nor is there any reason to believe that any radical departure from standards embodied in the present antitrust acts would be acceptable to Congress or to the public.

Those American interests that might be advanced by international cooperation restricting or regulating the flow of goods in foreign trade should not be entrusted to private business agreement, even under a procedure of advance clearance by government agencies. Such commodity cooperation can probably best be accomplished by legislation or by treaty limited to a particular field, under established intergovernmental controls.

This view and these recommendations are obviously based upon a forecast of world trading conditions that may in time be found to diverge widely from reality. It seems best, however, to preserve our general policy toward American participation in international business agreements unless or until it is clearly shown to be unworkable.

IV. CARTELS AND AMERICAN SECURITY[1]

SECURITY measures are of two sorts those concerned with prevention of war and those concerned with preparedness for war. The admonition "trust in God but keep your powder dry" recognizes, in a way, both aspects. Any attempt to prevent war must seek to eliminate sources of aggression and at the same time devise international machinery to minimize the effect of aggression where it cannot be eliminated. A concurrent preparedness for war is, of course, a confession of inadequate faith in preventive measures. Yet it is safe to say that this lack of faith will govern the actions of all powers and that the search for security will proceed along both roads.

It is alleged that (1) the continued existence of cartels, particularly German cartels, will jeopardize American security by hindering both the prevention of war and preparations for defense, (2) domestic cartels have been and will, if unchecked, continue to be a potent source of German aggression; and (3) American participation in German-dominated international cartels lessened the output of war materials in

[1] The preceding chapters, it is hoped, have made it clear that the author advocates (1) the pursuit, by international agreement, of a strong anticartel policy and (2) the strict enforcement of the antitrust acts against the participation of American firms in cartel arrangements that restrict imports into the United States and the exports of nonparticipating American firms. The present chapter is, in part, an attack upon the exaggerated shape and size into which the cartel problem is being blown by Congressional hearings and by the literature that has drawn upon these hearings. It may be freely admitted that anticartel propaganda has been extraordinarily successful in awakening the public to a problem whose existence might otherwise have been ignored. However, if a reasonable solution to the problem is to be found, it is also necessary to form a reasonable estimate of the magnitude of these objectionable practices and of their incidence It is the author's view that the harm is sufficient to justify an aggressive anticartel policy, but that this harm has been, in the main, to our peacetime foreign trade rather than to our preparations for and conduct of war Because it is difficult to attack an exaggeration of a problem without seeming to deny the existence of the problem this cautionary note seems necessary.

the United States and enabled Germany to engage in espionage and fifth-column activities.

In considering the security case against cartels one must begin by asking certain questions How great was the effect of American participation in international cartels on American war output· was it of the order of a fraction of 1 per cent or was it substantial? Are the alleged effects attributable solely to cartels, or are cartels merely an instrument for achieving policies that will be realized by other means if cartels are not available? What is to be done with international and German domestic cartels if their activities are found to be demonstrably prejudicial to American security?

A CARTELS AND AMERICAN PREPAREDNESS FOR WAR

The security case against participation of American firms in international cartels was developed mainly by the Antitrust Division of the U.S. Department of Justice in a series of Congressional hearings[1] and in a long list of complaints, many of which terminated in consent decrees involving the abandonment of practices deemed objectionable. More recently the War Division of the Department of Justice has sought to determine the effect on American security of domestic cartelization in Germany and of German participation in international cartels. The material made public in hearings and in antitrust complaints has already been exploited in a considerable volume of somewhat sensational literature.

The cartel activities alleged to have endangered American security took the form, in the main, of an exchange between American and German firms of patents and techniques. In antitrust terminology, an agreement to exchange patents apparently becomes a cartel under certain conditions· when

[1] Hearings before the Committee on Patents, U S. Senate, 77th Congress, 2d Session, 1942, Parts 1–9 (Bone Committee), Hearings before a Special Committee Investigating the National Defense Program, U S Senate, 77th Congress, 1st Session, 1941–42, Part 2, (Truman Committee), Hearings before a Subcommittee of the Committee on Military Affairs, U S Senate, 78th Congress, 1st Session 1943, (Kilgore Committee)

freedom to use the patent is limited in any one of a number of ways; when patents are so pooled or cross-licensed as to exclude other firms from technological knowledge that would be available in the absence of the agreement, and when a patent exchange is made the basis of a restrictive agreement on unpatented processes or articles. The word "apparently" is used advisedly, since the term "cartel" is employed with such conscious vagueness and the overtones invoked are so sinister and ominous that it is far from clear within what limits the cartel problem is being discussed. At one time it appears that any exchange of technology between firms in different countries partakes of the nature of an international cartel, while, at another, the maintenance of a subsidiary abroad is treated as a cartel operation

In this vein the present chief of the Antitrust Division, Wendell Berge, testified before the Kilgore Committee.

> The South American market has been extremely important to Germany It was in South America that she first hoped to be able to achieve political penetration under cover of commercial arrangements She used the South American branches of her commercial firms as centers of espionage, propaganda and political activity Her first step in regaining her power will be to reestablish, if she can, these agencies in Latin America
>
> We must do more than to prevent the resumption of these cartel agreements

When asked what he considered his most important contribution as chief of the Antitrust Division, Thurman Arnold is reported to have replied, "I have popularized throughout the United States the meaning of the word cartel." But so loosely is the term used at present that it seems about to pass into that vocabulary of vague and threatening gestures where repose such terms as "Red," "Bolshevik" and "un-American." There is a real question in the author's mind whether over-exaggeration of the cartel problem has not already gone far toward discrediting anti-monopoly policy in general and, by confusing legitimate with illegitimate business practices, has

not contributed materially to an unsound relationship between business and government in the United States.

Any consideration of patents in relation to antitrust policy bogs down in a juridical maze having to do with where the legal monopoly granted by patent right leaves off and where illegal monopoly, within the meaning of antitrust policy, begins. There is no doubt, furthermore, that patent-licensing and patent-exchange provisions that were legal when consummated 10 or 15 years ago are no longer legal today. It is not, however, the purpose of this report to consider in detail the circumstances that render a patent agreement legal or not legal under the antitrust act, such a consideration, moreover, lies beyond the author's competence

The fact is that in the middle 1920's American firms began on a large scale to enter into patent-exchange and patent-licensing arrangements with German and British firms, and these arrangements included the extensive exchange of unpatented industrial techniques. We shall call these arrangements international cartels (1) when the patents were exchanged or licensed under conditions limiting their use, (2) when the patent exchange took the form of a pooling or cross-licensing arrangement enlarging the market controls of the participating firms, and (3) when the restrictions on patents exchanged were extended to unpatented articles or processes.

This is not to say that all the foregoing practices are illegal, nor is it contended that these practices exhaust the meaning of international patent cartel. They do, however, constitute the crux of what has come to be known as the "international patent cartel" problem, and it is participation in arrangements of this sort that is alleged to have jeopardized American security in the prewar period.

In the period under consideration, patents licensed between firms in different countries carried numerous restrictive provisions. Among the most common were restrictions on exports outside licensed territory, restrictions in the field of use, and provisions for assignment of future patents. Con-

siderably less common, but sometimes more important, were restrictions on output and price. A German firm might license an American firm to use a patent on condition that the article produced not be exported outside the United States or, perhaps, outside North and South America. A processes patent might be licensed for production of one type of article but forbidden in the production of other types for which the process was equally well adapted. Division of territory between firms was facilitated by provisions that all subsequent patents would be cross-licensed between them.

Sometimes, when a small number of firms hold complementary patents on the processing of an article, a pooling of the patents will give the members a greater control over the sale of the article than the sum of the independent patents held by one producer. Pooling of this sort, that takes place among firms in different countries as well as among firms in the same country, thus becomes, by our definition, an international patent cartel. The cross-licensing of a large number of patents among firms in the same technical branch of industry (say, pharmaceuticals) facilitates a division of territory and imposition of other restrictive agreements affecting unpatented articles.

Such patent arrangements as these between American and German firms are alleged to have restricted the output of war materials in the United States, to have been used here by Germany for espionage and fifth-column activities, and to have resulted in technological research specialization that was all in Germany's favor. It is further alleged that during the war Germany used her cartel connections in the United States to maintain her Latin American markets and used her cartel connections in Latin America as a base for political and psychological warfare directed against the United States. Overshadowing the ostensible commercial arrangements are discerned the German government's political objectives, in process of attainment through the international cartel connections of German firms. This was "Germany's Master Plan."

It is possible to ring the changes very effectively on these allegations For example, the argument that a patent exchange has brought the United States a technical process useful in war production is countered by the charge that such exchanges foster technical research in Germany leading to improvements of which the United States may be deprived. If, again, a patent is licensed in the United States under conditions limiting export, it is claimed that freedom of export might create a market for technical research here that would make it unnecessary to accept from abroad technological improvements under limiting conditions. On the other hand, it is possible to cite chapter and verse in support of all the allegations of advantages claimed for Germany.

Restrictions on the international exchange of technology *have* created a monopoly problem that requires remedial action Effective measures, however, are not likely to be devised until the problem has been reduced to its proper magnitude and defined with greater exactness. Some progress may be made toward these ends if we consider the foregoing charges in more detailed fashion.

Effect of Patent Exchanges on American War Production

One way of judging the effect of American participation in international patent cartels on United States war production is to equate the shortage of cartelized materials to military requirements Thus, Messrs. Borkin and Welsh assert, "Whenever there was a cartel before, in 1942 there was a military shortage."[1] Unfortunately for this argument, the shortage was equally great among articles competitively produced, such as cotton textiles, machine tools, beef, eggs and butter. The decisive factor was the sudden rise in requirements, not the monopolistic or competitive conditions of production.

A second basis for judgment rests on the fact that during

[1] Joseph Borkin and Charles Welsh, *Germany's Master Plan*, Duell, Sloan & Pearce, New York, 1943, p 13

the 1930's German industrial production expanded while American industrial production marked time. Thus Borkin and Welsh, "In the years immediately preceding the war, the comparative production figures of the United States and Germany for those materials on which twentieth-century military efficiency most depends were all in Germany's favor." Apart from the fact that this was not true of steel, coal, ferro-alloys, lead, zinc, copper and a host of other materials on which military efficiency depends, the basic factor explaining the differing rates of growth was, of course, the increase in German military expenditures, which began in 1933.

If an over-all comparison of German versus American military output is attempted, everything that is known favors the latter. American military output not only rose more rapidly than the German but at its height showed a yield per man at least as much greater as one would expect from prewar comparisons of relative manhour productivity. By this time the superlative performance of the American economy at war should be too well established to be questioned. It should follow then that if American participation in international patent cartels had any effect—either plus or minus—on over-all military output it must have been so small as to be negligible.

This is not to say that instances are lacking in support of the view that American war production was hampered. The over-all effects, however, were minute, and to counter them there are processes and materials useful to the war effort that were secured from Germany. Among the many cases of restriction on war production presented by the Antitrust Division in complaints and in Congressional hearings, two of the most highly publicized may be selected for closer examination. These cases, treated at length in hearings and antitrust suits, concern Carboloy and magnesium.

The Carboloy Case. Carboloy is the trade name for cemented tungsten carbide, whose chief use is as a hard tip on metal-cutting tools. Tools tipped with Carboloy can perform most cutting operations at four times the speed of high-speed steels

and will retain their sharpness much longer. Obviously, Carboloy is a product of great potential value in munitions manufacture

Before 1928, tungsten carbide was exported to the United States by Krupp, which also licensed its production to a number of American firms. Both General Electric and Krupp controlled patents bearing on the production and processing of tungsten carbide, and in 1928 they entered into a patent-pooling agreement. Under its terms, GE was obligated to fix the price at which tungsten carbide was sold in the United States, to grant licenses to produce and sell at this price to firms formerly licensed by Krupp and to pay Krupp royalties on all metal sold by GE or its licensees. Krupp was obligated to refrain from manufacture in the United States and to sell in the United States only at prices fixed by GE. Both firms agreed to pool their technical information. The legality of this agreement is still under adjudication in the courts; we are here concerned only with the economic consequences.

Following the agreement, GE created the Carboloy Corporation of Detroit, which proceeded to establish a maximum price for the product of $453 a pound and a minimum price to large purchasers of $360 a pound. Krupp had formerly sold its tungsten carbide at $50 a pound. It is persuasively argued by the Antitrust Division that the purpose of the higher price was to discourage Krupp by reducing not only his sales but his royalty collections in the United States. The president of the company maintains that intensive development of the use of tungsten carbide in the United States required an increase in the size of motors and in the rigidity of machine-tool mountings, that men had to be kept in the field to instruct customers and that what was sold in the first few years was essentially a service.[1]

[1] Bone Committee Hearings, Vol I, p 256 Statement of W. G Robbins. If so it appears to have been (*a*) an unconscionably expensive service and (*b*) one that Krupp would have been glad to render at a fraction of the Carboloy Company's price

Whatever the merits of these arguments, it is a fact that Krupp became dissatisfied with the arrangement and proposed either a considerable reduction in price, thereby increasing its sales and its royalties, or a capitalization of royalties and a withdrawal by Krupp from the market. Parenthetically, one might ask how, in 1936, Krupp's interest in increasing the use of tungsten carbide in the United States fitted in with Germany's Master Plan. General Electric accepted the second alternative and in 1936 the contract was amended to provide for Krupp's withdrawal from the American market and for increased royalty payments by General Electric.

The maximum price was immediately lowered to $225 a pound. It was lowered again in the late 1930's, was drastically cut after the basic patents were declared invalid in 1940,[1] and dropped again when the U S. Department of Justice brought an indictment against GE in 1941.

During the 1930's, the consumption of tungsten carbide in the United States lagged markedly behind consumption in Germany and somewhat behind that in England. In the middle of the decade 1930–1940, German consumption was eight to ten times the total for the United States. The Antitrust Division attributes this discrepancy to the price, the company to the fact that the development started earlier in Germany. Certainly the extensive retooling required by German armament expansion, plus the fact that tungsten carbide was increasingly used in projectile cores in large-scale production in Germany but not in the United States, goes far to explain the difference in consumption between the two countries in the second half of the 1930's.

Without a greater knowledge than that afforded by the existing facts, it is not possible to judge the extent to which consumption and the rate of increase in consumption of tungsten carbide were affected by restrictive practices and

[1] *General Electric et al v Industrial Diamond Co et al*, 33 F Supp, p 969.

prices[1] The circumstance, however, that the invalidation of patents brought the price to a relatively low level in 1940, and that under the impact of war orders monthly production rose from 265 kilograms in 1938 to 10,000 kilograms by the middle of 1941, indicates that neither price nor lack of experience in the use of tungsten carbide was a significant handicap to war preparations

It is the author's view that both the arrangement with Krupp and the price policy followed by the company after 1936 and prior to the invalidation of patents are indefensible. Such practices clearly call for remedial action. At the same time the lurid exploitation of this case in Congressional hearings and elsewhere makes it necessary to emphasize that (1) the influence of the German partner in this arrangement was thrown in the direction of lowering price and expanding sales in the American market; (2) armament expansion in Germany was an important cause of the difference between the rate of use of this material in Germany and the United States in the 1930's; and (3) the effects of the objectionable practices on American industrial output were probably moderate and, on American war preparations, negligible.

Magnesium Case. Attracted by the high price of magnesium, eight American companies came into production during the First World War, but of these only two survived the postwar price decline: the Aluminum Company of America and the Dow Chemical Company of Midland, Mich. Dow's produc-

[1] Nevertheless, some absurd statements have been made concerning the effect of tungsten carbide on industrial production *Cf Fortune,* Vol XXV, No 1 (January 1942), and Borkin and Welsh, *op cit*, p 264: "Qualified experts have stated that tungsten carbide is the key to a 20 per cent increase in the total industrial production of the United States."

If one assumed that all machine tools capable of being converted were tipped with Carboloy overnight, and that, by reason of greater efficiency of cutting operations, four-fifths of the operators of these machines were thereby released for employment elsewhere, one might, by using figures in the ratio of machine-tool operators to the total industrially employed, form some estimate of the potential increase in industrial output involved The percentage in question would be nearer one than five

tion had as its base magnesium chloride, a by-product of the Company's principal chemical output Alcoa used magnesium chiefly as an alloying material for aluminum, but both Alcoa and Dow fabricated and sold magnesium alloys. In addition, Dow licensed a number of small fabricators of magnesium. No one has charged that before 1927 there existed any obstacle to the free production and fabrication of magnesium, yet in that year total United States output was less than 150 tons, and Dow, the principal and lower-cost producer, was barely breaking even on magnesium sales. Production was hampered by the high price of magnesium ingot in relation to the price of aluminum, but to an even greater extent by the difficulties encountered in working magnesium and its principal alloys

Alcoa, because of its higher costs, decided in 1927 to discontinue magnesium production and to purchase its entire requirement from Dow. An agreement was then consummated that provided for a cross-licensing of production patents and for the sale of ingot magnesium to Alcoa at lower than prevailing prices. Alcoa, of course, became by far Dow's largest customer.

The Antitrust Division alleges that, under this agreement, Alcoa hoped (1) to insure a price relationship between aluminum and magnesium that would not cut aluminum sales and (2) eventually to drive fabricators other than Dow out of the market.[1]

In 1931 the writhing tentacles of I G Farben reached into the scene. Alcoa and the German "octopus" formed a patent holding company, the Magnesium Development Corporation, in which they pooled both their production and their fabrication patents. I.G Farben's production process was evidently cheaper than any except Dow's, which was based on the by-product material available at the Midland works. The German company also contributed the important sulphur patents covering the use of sulphur to protect the metal sa it was melted and cast I.G would have preferred to license,

[1] Bone Committee Hearings, Part 2, p 958

through the Magnesium Development Corporation, some or all of the pooled patents to other fabricators on a royalty basis, but this conflicted with Alcoa's plan for as exclusive control as possible of the American magnesium market. Consequently, I.G. and Alcoa formed a fabricating company, the American Magnesium Corporation, on a 50-50 basis, and by entering into a five-year purchase contract with Dow managed to obtain at least as low a price on magnesium ingot as I G.'s production process would have made possible.

In the meantime, suit for patent infringement was brought against Dow for the presumptive purpose of "softening Dow up" for later manipulation. At this stage, according to the Antitrust Division account, there still remained

> . . . two flaws in Alcoa's plan to dominate completely the magnesium market. While Alcoa purchased magnesium at such a preferential rate from Dow that no other purchaser could compete with Alcoa, there was always the possibility that Dow itself might undercut Alcoa in its sale of fabricated products . There was the second flaw that Dow might license some other fabricator under the Dow fabrication patents Alcoa took care of the first flaw by a provision in the purchase agreement with Dow which provided for a fair cost of fabrication.[1]

The second danger was removed by a cross-licensing agreement entered into by Dow and the Magnesium Development Corporation on Jan. 1, 1934. The suit for patent infringement had accomplished its avowed purpose and was then withdrawn.

The magnesium situation in the second half of the 1930's was, then, as follows: Dow was the sole producer in the United States of magnesium ingot. This was not, however, the result of any agreement, since Alcoa, faced with Dow's lower-cost production, had voluntarily withdrawn from the field as early as 1927. The American Magnesium Corporation and Dow were coming to be the sole fabricators. Alcoa, having had a half interest in the American Magnesium Cor-

[1] Bone Committee Hearings, Part 2, p 974.

poration, could not increase its 4,000-ton fabrication capacity without the consent of I.G. There is, however, no evidence that this capacity was a restricting factor; actually I.G had a financial interest in increasing the tonnage output as the market required it. Dow was limited in its pricing policy by a stipulation in the 1933 purchase agreement with Alcoa that Dow must charge its customers a "fair cost of fabrication." On the other hand, Dow's fabrication charge does not appear to have been out of line with fabrication costs. Nevertheless, the licensing of production and fabrication patents to interested outsiders was certainly limited by this series of agreements.

A consent decree, entered on Apr. 15, 1942, made available the pooled patents on a royalty-free basis and imposed fines on the participants to the agreements. There can be little doubt that the restraints imposed by this series of agreements ran counter to the general welfare and that their termination was sound public policy. At the same time there is no assurance that the volume of magnesium consumption in the United States would have been much greater had there been no agreements. Here again the antitrust case, insofar as it concerns American security interests, errs by claiming too much.

It is pointed out that German production of magnesium increased from 12,080 metric tons in 1937 to 19,000 in 1940, while production in the United States in the same years increased from 2,057 to 5,680 tons.[1] It is suggested that Alcoa's dominant interest was in a price for magnesium that would not lead to the substitution of magnesium for aluminum, and the inference is that this purpose was served by the agreements. In all probability, however, the agreements are a minor factor in explaining the difference between German and American magnesium development. German war preparations were well under way in 1937, and the chief source of magnesium consumption was military, principally for aircraft. Moreover, German shortages of copper provided a

[1] Bone Committee Hearings, Part 2, p 934.

strong incentive for the development of light metals, including magnesium.

Difficulties encountered in working the metal seem definitely to have restricted its use in the United States, and it took the impetus of large aircraft requirements, both here and in Germany, to overcome those difficulties. That the price relationship between ingot magnesium and aluminum was not the main deterrent is indicated pretty clearly by the following price series.[1]

Domestic Price Per Pound of Ingot, in Cents

Year	*Magnesium*	*Aluminum*
1926	80	.275
1928	55	.243
1930	.555	.233
1932	.345	.233
1934	250	.233
1936	218	.205
1938	.218	20
1940	.192	.185
1942	.209	.15

A shortage of magnesium developed early in the war and reached its most acute stage in 1942. It would seem, however, that the primary cause was the failure of the Army and Navy Munitions Board to estimate adequately military requirements. Late in 1940 the estimate for 1941 was 7,000 tons and for 1942, 11,000 tons, both well within Dow's planned capacity.

In the Bone Committee Hearings, Senator LaFollette was of the opinion that the magnesium case was "the worst case he had ever seen" and asked for Thurman Arnold's acquiescence.

Said Mr. Arnold, "Well, I cannot disagree, because, of course, this has tied up a basic material, and I suppose that if we had allowed American ingenuity to operate in this basic

[1] From a pamphlet by the Dow Chemical Company, *Dow and Magnesium*, The Dow Chemical Company, Midland, Mich (undated), Appendix 1

material, we would have better houses, better automobiles, lighter automobiles and better airplanes I suppose that the actual damage of tying up this basic material is incalculable.[1]

Mr. Arnold does not say whether the damage was incalculably large or incalculably small. It is the author's opinion that the calculus of small numbers is more nearly relevant.

Congressional Investigations

The Truman Committee, in its voluminous hearings, has somewhat cautiously—and the Bone Committee, in its even more voluminous hearings, very incautiously—built up the view that American participation in German-dominated international cartels had a devastating effect on our war preparations. The Kilgore Committee has been covering much the same ground, more exhaustingly, but without adding anything significantly new. These committees have covered, in addition to Carboloy and magnesium, international patent agreements relating to dyestuffs, synthetic rubber, methane, zinc, tetracene, communications, methanol, optical glass, plastics and other products and processes extensively used in war production.

Although the particulars vary from industry to industry, the general import of the practices complained of is similar.

Limitations of Use of Acquired Technology. It is true that patents and techniques were acquired from abroad under conditions that were clearly limiting as compared with their potential usefulness under a system of free licensing. Whether this technology could have been acquired under a system of free licensing is another matter, but certainly a substantial part of the limitation could be surrendered with decided benefit to the international exchange of technology.

The particular effect on the war effort of limitations on the use of patents is a matter on which competent observers differ widely. In 1943 the National Patent Planning Commission,

[1] Bone Committee Hearings, Part 2, p 968.

appointed by the President to inquire into the workings of the American patent system, reported that the relation of patents to the war effort "involves no serious problem."

> Existing laws permit the Government of the United States and its contractors and subcontractors to manufacture and use any in-invention, patented or unpatented, regardless of the citizenship of the owner, upon the payment of reasonable compensation These laws operate both in peace and in war After consulting with the several government departments, including the War and Navy, and affording them an opportunity for the presentation of evidence, the Commission is convinced that the existing laws are adequate to protect the government during the present national crisis'[1]

It was, nevertheless, the conclusion of the Truman Committee—an able committee, ably counseled—after a careful examination of the agreements between Standard Oil of New Jersey and I.G. Farben, with particular reference to synthetic rubber, that "Standard is only one of a group of companies producing critical materials which, by cartel agreements and by the subsequent control of patents, have sought to restrict and control production. This has constituted one of the greatest menaces to our war effort."[2]

The National Patent Planning Commission's statement that the relation of patents to the war effort "involves no serious problem" is, on the other hand, too sweeping. A patent disclosure does not mean full or ample disclosure of the technology involved in its use; even if it did, large-scale use of patent licenses by the government or on behalf of its contractors in time of peace—which is the proper time to prepare for war—would put government in business far beyond limits considered desirable by those who contend there is no serious patent problem affecting preparation for war. If we are to rely on private industry in peacetime, there must be sufficient freedom in the acquisition and use of technology to make possible a quick transition to efficient production for war.

[1] *The American Patent System*, Report of the Commission, p 2

[2] 2d Annual Report, p 63

Yet to those who maintain that limitation imposed by cartel agreements on the use of patents "constituted one of the greatest menaces to our war effort," it must be pointed out that the menace never materialized sufficiently to be visible in the statistics of war production. There is in cartel control of patents a problem that calls for public action, but it is not the major problem affecting American security.

Division of Export Territory. An examination of the evidence brought out in hearings reveals that the principal object of American participants in international patent-exchange agreements was, in many cases, not the acquisition of processes or products but the limitation of competition, primarily through a division of fields. Cross-licensing agreements and provisions for the assignment of future patents tended to strengthen and perpetuate division of markets between the parties. Frequently such division extended to unpatented articles and techniques.

Perhaps the most important and far reaching of these division-of-fields agreements was that consummated in 1929 between Standard Oil of New Jersey and I.G. Farben. It allocated the pooled patents and techniques of both firms in the general chemical field to I.G. Farben for use in any part of the world, *including the United States*, and to Standard the use of their combined patents and technology relating to oil and oil chemistry in any part of the world, *except Germany*. Standard thus made its oil discoveries available to Germany through I.G. Farben, while the latter retained control of its chemical processes everywhere, including the United States.

Other agreements establish a purely territorial division of fields. areas assigned to the contracting parties were dependent on their respective bargaining strength, which in turn depended largely on the value of the technology each had to contribute.

The principle of international division of labor extends to technological research with advantages, under proper provisions for use, similar to those of division of labor in pro-

duction. Germany, for economic and historical reasons, has long been technologically superior in chemistry, pharmaceuticals, optical instruments and, within recent years, the light metals. Territorial and use limitations imposed on German technological information acquired by American firms in these fields were largely, therefore, a reflection of Germany's preeminence. In areas of American superiority, such as electrical and communications equipment, the limitations naturally favored the United States. In the patent-exchange agreement of 1931, for example, between RCA, Photophone and ten producers and distributors of motion-picture sound film in this country, and two manufacturing companies and two distributors in Germany, the American companies were given exclusive rights in the United States, Canada, Newfoundland, Australia, New Zealand, the Straits Settlements, India and Russia, as against the Germans' exclusive rights in only a part of Europe.[1]

The U.S. Department of Justice case against international patent cartels, as presented in various Congressional hearings, tends to minimize the value to the United States of technology acquired from abroad and to emphasize the limitations put upon American use. Accordingly, the primary consideration for American firms is taken to be the elimination of foreign competition from the American market. Attorney General Biddle asks,

> Why did American firms enter into these agreements? The answer is simple. They did so for business reasons. They thought it would be better if they did not have to compete with German firms in the American market. . . . They hoped also to get valuable technical information from the German firms. This hope was not always realized. Unfortunately, in too many cases, the consequences were that the information went only from the American Company to the German firm.[2]

[1] Kilgore Committee, Part 4, p. 408.

[2] Testimony before the Kilgore Committee, Aug. 29, 1944.

Thurman Arnold emphasizes the same point in an exchange with Senator Clark, before the Bone Committee.[1]

Senator Clark: "Now you astonish me when you say that our manufacturers and industries have been since 1934 giving the Germans the benefit of our improvements without getting a *quid pro quo*."

Mr. Arnold: "Oh, they got a *quid pro quo;* they got stabilization of their markets in South America, and they got the market here. They got markets; that is what they really want."

In point of fact, American firms also got technological knowledge, some of it enormously important for the war effort. The "secret cartel agreement" of 1927 between Rohm and Haas, Philadelphia, and Rohm and Haas, Darmstadt, brought to this country the plexiglass extensively used in both bombers and pursuit planes. Plexiglass was exclusively a German development, and despite the Nazis' Master Plan the patents came to this country in 1936.[2] I.G Farben's total contribution to the long series of developments in oil chemistry utilized in this country by Standard is difficult for a layman to evaluate, but tungsten carbide, tetracene, the sulphur process in magnesium production, and many other products and processes extensively utilized in war production would have to be at least in part credited to I.G.

Along with this technological advantage there went, however, territorial provisions dividing markets, and many other limitations on freedom of use. These restrictions undoubtedly kept United States production from attaining the level it

[1] Bone Committee, Part I, p 645.

[2] Bone Committee, Part 2, testimony of Walter R Hutchinson, p 677

Senator Lucas "Nevertheless, Germany permitted that patent to come to this country in 1936, giving us the same opportunity here to make the same type of glass that they were making there, from the standpoint of war production"

Mr. Hutchinson "Of course, it was not the cast sheet then, it was just the making of plexiglass"

Senator Lucas: "But as they developed it, the Philadelphia concern obtained the same benefit"

Mr Hutchinson "That is right."

might have reached had the information been freely acquired, and an important objective for public policy will be to devise means of acquiring foreign technology with a minimum of restriction on its use The inference, however, that American participants in international patent agreements were interested exclusively in markets and acquired little of technological value runs counter to the facts.

Protection of Enemy Interests. There was sometimes more involved in prewar international patent agreements than division of fields and restrictions on use in production. The agreements, on occasion, led American participants into actions designed to protect the interests of enemy firms during the war. Although the consequences on our war effort were seldom adverse, their long-run effects may well be interpreted as contrary to American security. In certain instances, United States participants in patent arrangements have taken title to German-owned patents in order to keep them from being vested by the Alien Property Custodian. More frequently, United States firms have attempted to sustain Latin American or other foreign outlets of German cartel participants by supplying goods to German subsidiaries or agents cut off from Germany by the war. Whether these actions are considered inimical to American security interests depends largely on one's attitude toward the continuance of technical data agreements with German firms and resumption of foreign trade and business relations with Germany. Certain aspects of this problem are touched on in Sec. B of this chapter.

The acts were a close approach to trading with the enemy in wartime. The applicability of the Truman Committee's judgment on the Standard Oil-I.G. Farben agreements transcends that particular case. While exonerating Standard's officials of "moral turpitude or of subjective unpatriotic motives," the Committee took the view that, as a result of these agreements, "Standard was repeatedly forced into situations which, taken individually and outside of the general

pattern of this arrangement, can be construed only as most compromising "[1]

On the other hand, such conduct as this is not limited to cartel relationships, however they are interpreted, but may develop out of any close business relationship with firms in potentially enemy countries.

Espionage

Not only did German-dominated international cartels obstruct American war production, but, according to the anti-cartel case, American participation was effectively used for German espionage. That sources of economic intelligence in the United States were diligently exploited by Germany can be readily admitted. What needs to be determined is: how valuable was this intelligence; could it have been as easily acquired without cartel connections; could it have been denied Germany without breaking off all trade relations with her; and, if so drastic a step were taken, what would have happened to our own sources of economic intelligence vis-a-vis Germany?

The types of economic intelligence alleged to have been acquired by Germany through cartel connections were (1) published information systematically collected, (2) reports of secret agents, (3) data on output of particular products under patent licenses controlled by German firms and (4) designs and specifications of articles of miliary use. Germany could have acquired the first two types of information as effectively by, or under cover of, almost any sort of American subsidiary. Items (3) and (4) became available through technical data agreements between German and American firms, although such agreements may or may not have included those restrictive provisions that characterize, by antitrust definition, a cartel. Since normal unrestricted international business relations give rise in peacetime to a flow of all four types of economic intelligence, it is difficult to see a special connection between cartels and espionage.

[1] 2d Annual Report of the Truman Committee, p 49

One of the most active collectors of published economic intelligence in the United States was an I.G. Farben affiliate, the Chemnyco Company. Chemnyco was under contract with I.G. to handle patent and tax matters, maintain technical relations between I.G. and American firms, and provide economic and political reports. According to the testimony of Francis Biddle before the Kilgore Committee,

> In order to carry out the program of the Nazi Government, I G. [here described as a combine] established a network of dummy companies all over the world. It used these as centers of propaganda and espionage. Typical of the activities of one of its American agents was the collection of military and geographical information which the German Government thought important as, for instance, a map of the Pacific northwest on which were located all the principal power developments in the States of Washington, Oregon and Idaho [1]

The map in question was one that the Federal Power Commission automatically made available in 1937 to any interested inquirer. It is difficult to understand how the acquisition of such information by potential enemies could possibly be prevented without denying it to our own nationals. There is no doubt that the United States makes peacetime economic espionage of this type particularly easy We publish more voluminous statistics and circulate them more freely than any other country. It is, however, easy enough to acquire such information abroad, even in Germany. Nine-tenths of what we knew about the German economy at the outbreak of war was derived from German published sources, and most of the remainder was gleaned through the interrogation of business men and technical experts familiar with the German economy.

As for the activity of secret agents, cover can be and is provided without benefit of cartel connections. Almost any kind of foreign subsidiary or agency can serve this purpose, and unless the United States is prepared to break off all economic and even cultural relations with foreign countries, it may expect to harbor secret agents. Business cover for espionage will

[1] On Aug 29, 1944.

exist as long as international trade is carried on, and these activities, therefore, are not uniquely relevant to the cartel problem. They have, nevertheless, played a large part in the antitrust case against cartels.

Production figures on patented articles or on articles produced by a patented process are usually received as data incidental to royalties from patent licensing. Since many German-owned or controlled patents were used by firms operating under Army or Navy contracts, information bearing on output customarily accompanied the royalty payments. The 1921 agreement between the American firm of Bausch and Lomb and the German firm of Zeiss, which has been extensively publicized through Congressional hearings, provided for royalty payments to Zeiss over a period of 25 years on all of Bausch and Lomb's military business [1] Zeiss patents and technical. knowledge were put at the disposal of the American firm for production and sales limited to the American market. As soon as the contract was made, the Army and Navy were acquainted with the terms relating to military production and appear to have been interested solely in assuring the American armed services of "Zeiss quality" optical instruments. There is no evidence that instrument designs of a secret military nature were transmitted from Bausch and Lomb to Zeiss, and after 1935 lump-sum royalty payments were devised to conceal information on the output of individual items. Undoubtedly, under such an arrangement, a certain amount of information relevant to American military output must still have been available to Zeiss.

Since the Zeiss-Bausch and Lomb agreement also allocated market territory and otherwise limited the use of cross-licensed patents, it constituted, *ipso facto*, a cartel. But any international technical-data or patent-licensing agreement is bound to make available to the respective parties a knowl-

[1] Wendell Berge's testimony before the Kilgore Committee, Sept 7, 1944, was largely devoted to a summary of the relations between Zeiss and Bausch and Lomb.

edge of the other's capacity and output; the problem is not limited to cartels. Unless we prohibit the use of technical knowledge acquired from abroad, it will be impossible to close this loophole to potential enemies.

International technical agreements covering articles and processes of actual or potential military use often call specifically for the exchange of designs and operating and production data. The Bausch and Lomb-Zeiss agreement was of this type, and so were many others. Agreements to which particular attention has been paid were those between the American Bendix Aviation Corporation and the German Siemens Apparate und Maschinen, both producers of aviation components; the American Bosch Corporation and the Robert Bosch Company of Stuttgart, specialists in fuel injection systems; and the American Sperry Gyroscope Corporation and the German Askania Werke, both makers of gyroscopes, automatic pilots and other aircraft precision instruments Since these and many similar technical-data and patent agreements involved limitations of one sort or another on the use of acquired technical data, they fall within the antitrust definition of cartels. Yet technical data agreements without these limitations, washed clean of any cartel taint, would still constitute a channel for the transfer of technical information of military value to potential enemies.

The Army and Navy can, of course, and on occasion do, commit their contractors and subcontractors to secrecy regarding particular products and processes, although they may possibly not have demanded sufficient disclosure of the foreign relationships of their supplying firms. It would appear, however, that if espionage is to be prevented, the Army and Navy will have to maintain closer control of the activities and international connections of military contractors. The actual cartel characteristics of these international connections have very little discernible relationship to espionage.

In this, as in other approaches to the cartel problem, the U S. Department of Justice case: (1) begins with a condem-

nation of restrictive cartel practices and then, by failing to distinguish between cartels and other types of business arrangements, ends with an implicit condemnation of almost any kind of foreign business transaction; and (2) begins by centering attention on the restrictive aspects of patent-exchange agreements and ends by implicitly condemning almost all international technical data agreements.

"Germany's Master Plan"

German-dominated cartels are alleged not only to have limited America's war production and fostered systematic espionage but also to have encouraged fifth-column and sabotage activities, engaged in psychological warfare and in other ways weakened and harassed Germany's potential enemies.

This, "Germany's Master Plan," was officially outlined by Francis Biddle, testifying before the Kilgore Committee.[1]

> It was the theory of the German Government that operating under the guise of ordinary commercial arrangements, these firms could be used to weaken Europe and America so that when the military war was resumed, we should lose. Through the techniques of industrial penetration, they hoped to be able to cripple American production, to gain from us technical know-how, to conduct espionage upon us, and to establish centers of propaganda throughout the world

These activities were sometimes carried on not by cartels but by combines. The motto of the U.S. Department of Justice in such cases appears to be, "If it isn't a cartel, it's a combine."

The author has been unable to discover any document in which the German government expressed the theory described above, or any set of directives adopted for its implementation. Also, it is difficult to see how Germany could have expected to use ordinary business transactions, implying a *quid pro quo*, to get all of the *quo* without supplying some of

[1] Aug 29, 1944

the *quid* Unless one accepts the whole set of limitations under which patents were licensed and technology exchanged—all explicable on purely commercial grounds—as evidence of a German political plan, the evidence is extraordinarily thin. It consists chiefly of a few instances in which German firms, at the request of, or out of fear of, the German government, refused to supply, or delayed the supply of, technical information they were obligated by contract to deliver. The most plausible, and perhaps the most important cases concerned data on buna, a synthetic rubber controlled by I.G. Farben, and the automatic aircraft pilot, controlled by Siemens Apparate und Maschinen Against these and a few other examples would have to be put the very large number of potential and actual technical processes, useful in war production, acquired from Germany by American firms.

Another piece of evidence, often quoted and extensively relied on, is the remark of Dr. Meinhardt, chief of the German Osram Company "An international cartel has no right of existence and a German business man has no right to become a member of such a cartel if this cartel is acting against the common interest of Germany."

There are probably American or English business men who would subscribe to the same patriotic sentiments

There can be no doubt that the Hitler government succeeded in effectively bending German enterprises, large and small, to the purposes of the state. There is also no doubt that German business connections abroad were extensively used for espionage and psychological warfare. In this, German practice did not differ markedly from that of other countries, including some democracies, though it was probably more aggressive and effective. But the theory that Germany had high expectations of weakening her enemies through ordinary business transactions including cartels, or that these transactions need any explanation other than that supplied by business considerations, is not strongly supported by the evidence. A consideration of Germany's preparations for and

conduct of war points to the conclusion that Hitler's Reich did not put much stock in economic warfare, particuarly of the type just discussed.

Although America's preparations for war may in a few instances have been adversely affected by American participation in international cartels, and although it behooves us to know more about the terms of international business agreements consummated in future, these are security problems of relatively small magnitude. Recent cartel discussions, however have emphasized another aspect of security to which we now turn.

B CARTELS AND MILITARY AGGRESSION

If preparation for war is one way to approach security, an attempt to avoid war by eliminating or neutralizing sources of military aggression is the other. It will, therefore, be relevant to determine what relation exists, if any, between private monopoly, including the cartel form, and military aggression.

Victory over Germany has confronted us and our Allies with the necessity of deciding what is to be done with Germany's foreign economic controls, including cartel connections, and with industrial facilities within Germany. Whatever is done will affect the international cartel system Our primary interest in the determination of these policies is, however, a security interest, specifically, the minimizing of future aggression.

Confiscation of German-acquired property in occupied Europe will automatically sever the contractual and customary relations between German and outside firms on which Nazi control of the industry of the continent depended. This, as former Secretary Biddle points out, "will be no minor task because their methods of concealing control are many."[1] Not only will Nazis be eliminated from positions of economic as well as political power, but the destruction of military facilities in Germany will affect many properties in the

[1] Testimony before the Kilgore Committee, Aug 29, 1944.

chemical, aviation, electrical equipment and other industries in which Germany's cartel position was dominant. If the basic security decision is to make Germany weak, further drastic reduction of the heavy industries may be called for. If, on the other hand, the ultimate security objective is the emergence of a prosperous but nonaggressive Germany, destruction of industrial facilities should be relatively limited.

If the latter decision prevails, Germany may be expected eventually to reestablish her foreign trade and become again the leading industrial country of the continent, excluding Russia. Would Germany then resume her international cartel connections and the high degree of monopolistic concentration in her domestic industrial organization? Specifically, will United States security require inclusion in the peace settlement of prohibitions against the restoration of Germany's international cartel connections and of measures designed to lessen or control domestic monopoly power?

The U S Department of Justice has been considering this aspect of the security question, but its program to date is, perhaps inevitably, vague. In testimony before the Kilgore Committee, Biddle and Berge have emphasized, as important objectives, confiscation of the foreign assets of German firms, the acquisition, without limitation as to use, of German patents and technology both present and future, and the breaking up of German internal monopolies.[1]

[1] For example, Wendell Berge's testimony (Sept 7, 1944) suggests the following security program. "(1) We must acquire, as soon as possible, patents and technological know-how which the German firms acquired during the war years and in preparation for this war . (2) In the future, the work of such laboratories as will continue to exist must be made available to firms on a general basis in this country The Germans have made a habit of using their know-how as a means toward military domination As a national security matter alone, the German laboratories which continue to exist must operate in full view of the rest of the world and with adequate safeguards so that their discoveries cannot be kept secret (3) We must break up the German firms. They must be forced to disgorge the securities and stocks of companies all over the rest of Europe and they must not be allowed to exist as powerful monopolies within Germany (4) Some German firms probably ought to be physically removed from Germany and their laboratories internationalized"

International Cartels as a Medium of Aggression

It is not obvious that international private business agreements, dividing world markets, fixing prices, limiting output and engaging in other market-regulating activities, are more a source of international tension than unregulated competition. The monopoly power of cartels has, it is true, been used in unfair competitive practices of a type destined to provoke national resentment. Local enterprises in Latin American countries have been stifled by the price-cutting threats of foreign combines and cartels,[1] while small competitors have everywhere been driven from markets. The German Stahlwerksverband, working through the international steel cartel, attempted, though unsuccessfully, to prevent the establishment of an iron and steel works in Greece.[2] Indeed, to combat the unfair competitive practices of foreign cartels was one of the principal objectives of the Webb-Pomerene Act.

Unregulated competition, on the other hand, has been similarly productive of national resentment and has frequently led to governmental action designed to curb its real or fancied excesses. In the postwar period, the competitive strength of American exports is likely to create at least as much apprehension and resentment abroad as the machinations of foreign cartels will arouse in the United States.

The real hazard to international security in the cartelization of world trade lies in the cooperation of governments with business in the exploitation of foreign markets. The fact is that, except in the United States and perhaps a few other countries, a close connection generally exists between foreign trade and foreign policy, and the power of the state is extensively relied on for the promotion of export interests. Since a large part of the foreign trade of most European countries is cartelized, the export firms and associations rely

[1] See Corwin Edwards, *Economic and Political Aspects of International Cartels*, (Kilgore Committee), 78th Congress, 2d Session, 1944, Monograph 1, pp 47–49.

[2] Kilgore Committee, testimony of Francis Biddle.

on their governments not only to protect the domestic market but to secure for them as large a quota as possible in the total business of the cartel. The activities of the British government in facilitating the British steel industry's participation in the international steel cartel are illuminating.

As governments begin to take an active part in negotiating cartel agreements, in coercing domestic firms into cartel participation and in policing and protecting national cartel members, considerations of foreign policy and national prestige intervene in what were formerly purely business arrangements. The power of the state is used in negotiation to obtain a position in world markets that could formerly be achieved only through business competition. The next logical development is the joint action of two or more states on behalf of their export interests as against those of a third state.

Such action was implicit in the so-called Dusseldorf agreement between governmentally encouraged German and British business men in the period just before the war—and the implications were dangerous. In March, 1939, the Federation of British Industries and the Reichsgruppe Industrie, top industrial associations in both countries, met in Dusseldorf, under government sponsorship, to work out means of lessening competition between German and British exports. Mr R. S. Hudson, Parliamentary Secretary of the Department of Overseas Trade, took an active part in the negotiations, and his view of their significance is interesting. It was Mr. Hudson's opinion, as reported in the press, that the day of the individual trader is over, that world markets should be divided and regulated by private agreement, and that an agreement like that contemplated with Germany should be negotiated with other European countries.

The conference at Dusseldorf concluded with a twelve-point agreement, of which three paragraphs are worth quoting here:

5 The two organizations are agreed that it is desirable that individual industries in both countries should endeavor to arrive at industrial agreements which will eliminate destructive competition,

wherever occurring, but prices must be fixed at such a level as not to diminish the buying power of the consumers.

6 The two organizations realize that agreements upon prices or other factors between Germany and Great Britain are only a step, though a most important step, toward a more ordered system of world trade They would welcome the participation of other nations in such agreements . . .

8. The two organizations realize that in certain cases the advantages of agreements between the industries of two countries or of a group of countries may be nullified by competition from the industry in some other country that refuses to become a party to the agreement. In such circumstances, it may be necessary for the organizations to obtain the help of their governments and the two organizations agree to collaborate in seeking that help.

As it happened, Mar. 14, the day before the conference convened, was the date of Hitler's march into Czechoslovakia, and on Mar. 21, Hitler declared that the Czechoslovak nation no longer existed. In view of these developments, President Stanley of the Board of Trade felt constrained, on Mar. 28, to announce to the House of Commons that "at the present moment further progress [of the Dusseldorf negotiations] is impossible"

It is doubtful whether, apart from the march of contemporary events, the British government would ever have accepted and implemented the Dusseldorf agreement, since its political implications vis-à-vis the United States were obvious, and soon denounced [1] Nevertheless, the pattern of international trade regulation it suggested is by no means dead. An international cartelization agreement embracing a larger number of countries and enjoying a greater measure of governmental support is a very possible development in postwar European trade.

The security implications of such a system of trade regulation depend largely on whether an extension of govern-

[1] The London *Economist*, in an adverse comment on the agreement, wondered whether there is anything "in the atmosphere of Dusseldorf that causes sensible men to lose their wits."

mentally negotiated and supervised cartel agreements might lead, through a partial surrender of national sovereignty, to an international organization regulating imports and exports without undue regard to areas of origin and destination, or whether such a process would leave sovereignties unimpaired and merely widen the domain within which considerations of power and national prestige are permitted to dominate business interests.

At Bretton Woods a promising start was made toward international postwar monetary cooperation, although the plan accepted by the experts carefully safeguards the freedom of action of participating governments. Both the Food and Agriculture Organization and the International Labour Office have proposed an international organization to administer commodity agreements. The *Proposals* recently published by the U.S. Department of State wisely subordinate commodity controls to the broader ministrations of an International Trade Organization. It is probable, moreover, that if such an organization is established, certain agreements of a cartel character, as in tin and rubber, will come under its jurisdiction. It is not yet clear, however, to what extent these and other experimental approaches to international economic planning would impinge on national autonomy, nor is it possible to predict how well they would withstand the strain of a serious conflict of interests among participating nations. International cooperation in these areas, however successful, does not presage the success of intergovernmental sponsorship and regulation of cartels. Effective cooperation in this field would require, at a minimum, a similarity of aims among the participating nations and a similar attitude toward the relationship of government to business. But even this minimum requirement is not likely to be satisfied. On monopoly and competition, and on the position of private enterprise, the countries of the Western Hemisphere differ so sharply from the nations of Western Europe that a policy of international cartelization, under whatever degree of govern-

mental control, seems altogether impracticable. Feasible or not, the intervention of governments in cartel manipulation would be more likely to exacerbate than to alleviate international tensions.

On this point the author would agree with Professor Viner's dictum that, "When governments are also conductors of economic enterprise in the international field, what results is a pattern of intergovernmental relationships in which economic, political and military bilateral-monopoly-plus-duopoly are all wrapped up in one package of international dynamite."[1]

If an international cartel policy is to contribute to international security, then it had better be based on an agreement to prohibit restrictive cartel practices rather than on an agreement to sponsor and regulate. As for Germany's resumption of her war-disrupted international cartel connections, it may be pertinent to suggest that what the Allies can accomplish in the way of cartel policy by voluntary agreement among themselves will determine what can be enforced on Germany by compulsion. If Great Britain and the United States should jointly decide to prohibit restrictive cartel agreements, there is every reason to believe that this policy could be imposed on Germany through the peace settlement, and that Russia too would support it. If, on the other hand, the countries of Western Europe resume their own prewar international cartel connections, it will not be possible for long to keep Germany out—nor would these countries want to.

Domestic Cartels in Germany as a Source of Military Aggression

Germany, even before the advent of the Nazis, was the most highly monopolized capitalist economy in the world. Cartelization of German industry virtually coincided with the emergence of Germany as an industrial country. The German courts have always recognized cartel agreements to be as

[1] Jacob Viner, "International Relations between State-controlled National Economies," *American Economic Review*, Supplement, Vol XXXIV, No 1, Part 2 (March, 1944), p 319

enforceable as any other contracts, and even before the First World War the power of the state was used to compel cartelization. Typical of German official opinion was the judgment of the Bavarian Supreme Court, expressed 1888, that "it is incumbent upon prudent business men belonging to a branch of industry which is suffering from a depression to get together and enter into agreements regulating the ways and means of operating their industry with a view to promoting recovery."

The First World War increased the extent of industrial concentration in Germany as it did in this country. Postwar inflation seriously damaged small-scale and uncartelized German industry, and the period of large-scale borrowing from abroad, following inflation, saw a further expansion of firms already large enough to take advantage of these borrowing opportunities. When the Nazis came to power, the process of Aryanization further depleted the ranks of small-scale enterprisers. Cartels were reduced in number through a process of consolidation that expanded their coverage and the extent of their controls over individual firms but at the same time disciplined them to the uses of the developing Nazi war economy. Heavy armament expenditures of the 1930's accelerated the growth of German combines in much the same way as they promoted the growth of large-scale American enterprise in the 1940's

At the outbreak of the war, about thirty large German combines were responsible for most of the output in aircraft, nonferrous metals, chemicals (which included explosives, synthetic fibers, oil, rubber and plastics), communications and electrical equipment, optical instruments, iron and steel and their fabricated products. These industries accounted for the bulk of war production. The principal combines, along with the rest of German industry, were closely organized into about 500 cartels that, by that time, were not merely commercial market-regulating agencies but units in a governmentally directed war economy.

Cartels are clearly a deep-rooted German institution. At

no time has an anticartel movement of serious proportions emerged in Germany. Pre-Hitler trade unions and the Social Democratic party, far from opposing cartels and combines, always regarded them as a stage "higher" in evolution than unregulated market competition and closer to the institutions of a socialist state.

The connection between industrial monopoly and military aggression appears to be clear and simple to many anticartel Americans. As they express it, "The cartels made Hitler and Hitler made war." The remedy, by this analysis, would appear equally simple. Break up the cartels and combines, and eliminate the sources of German aggression. The only less simple Marxian remedy would go considerably further than any anti-monopoly program. In the author's opinion postwar Germany is historically conditioned to move in the Marxian direction rather than in the direction envisaged by Senator Kilgore.

There exists, nevertheless, an indirect, and not unimportant, connection between industrial monopoly and foreign aggression. Business concentration, by increasing the political vulnerability of all business, and by inducing extremist views, makes it more difficult for a private-enterprise economy to survive in a democratic environment. German big business not only financed the Nazi party but supplied it, by merely existing, with the arguments that Hitler found most effective in rallying the German masses; the latter was by far the more important contribution. Then, too, the effect of monopoly on the distribution of income, by increasing the supply of investible funds while restricting investment opportunities, serves to aggravate domestic unemployment, thus emphasizing the importance of an aggressive foreign expansion. Once assured governmental support, in an anti-democratic political environment, German business had recourse to the power of the state in promoting its export interests, and the Nazi state, in turn, had access to the foreign connections of German firms in promoting its political program.

of materials allocation, procurement and price control. If they are not to continue in that function, military government will have to devise a substitute mechanism

If any permanent anti-monopoly policy could be put into effect during the period of Allied occupation, the disruption and disorder incident to its application would count for little. Of all the institutions and policies known to history, however, those imposed by victors on a vanquished enemy are likely to be the most impermanent. The only lasting structural changes that can be made in the German economic and political system will have to be made, in the absence of continuous occupation, by the Germans themselves. Occupation forces can, after a fashion, keep things running in accustomed channels; they can eliminate individuals, destroy or build material installations. They cannot, however, by law or edict, establish domestic institutions guaranteed to outlast the departure of the last foot soldier from enemy soil

It is equally improbable that alterations in the structure of the domestic German economy could, with any success, be imposed through a peace settlement. If the Allies pursue a thoroughgoing policy of de-Nazification, the chief obstacles to a realignment of political forces in Germany will have been eliminated. It is on such elements as may thereafter come to power that the United Nations will have to rely for changes holding any expectation of permanence. The political forces that will, in fact, come to power in Germany, may be expected to deal effectively with the problem of private monopoly, but not by an anti-monopoly policy or by antitrust procedures. The kind of German competition we shall eventually face in world markets will not, in the author's opinion, be that of I G Farben, Krupp and Siemens-Schuckert Rather will it be the competition of German state trading monopolies. Whether these are more or less conducive to aggression than the prewar cartels remains to be seen.

PART II

Intergovernmental Commodity Agreements

SUMMARY OF FINDINGS AND RECOMMENDATIONS

It is becoming increasingly necessary for public policy to take into consideration the conditions surrounding production and use of particular raw materials. National commodity policy must frequently anticipate probable repercussions of proposed lines of action on foreign interests. Less frequently, sporadic or continuous consultation with foreign governments on commodity problems and policy will pave the way for concerted action in the form of an international commodity agreement. From this point on we shall be primarily concerned with intergovernmental commodity agreements; but it must be understood that such agreements form only a part of intergovernmental action affecting particular commodities, and that national commodity policy covers a still broader area.

The United States is already party to two agricultural commodity agreements—those covering sugar and coffee—and a number of fishing agreements. We are a signatory of the Draft Wheat Agreement and are in process of negotiating two other proposed agreements covering oil and cotton. A so-called "study group" has been formed, with representation from the United States, Great Britain and the Netherlands East Indies, to consult on the rubber situation. More active collaboration may be expected as the disposition of our synthetic rubber plants and the opening up of natural rubber areas in Southeast Asia create new problems.

This government now holds large surplus stocks of raw materials produced for war purposes; in the disposal of these surpluses, as well as of excess production capacity in aluminum, magnesium, nitrogen and other materials, we may find it advisable to enter into consultative and perhaps concerted action with other governments.

Since, in a whole group of strategic materials, American sources of supply are inadequate or failing, an attempt may be made to enlarge them by exploration, the acquisition of concessions, and investment in raw material installations abroad. Here we may encounter other powers also seeking supplies of the scarce materials, and on occasion the conflicting interests may be reconciled by intergovernmental negotiation. This in fact is the primary purpose of the proposed oil agreement.

Our domestic agricultural policy is now oriented in the direction of supporting, at extremely high levels, the prices of basic farm products. To maintain customary export markets in the face of high domestic prices, Congress has ordained a policy of export subsidy. To mitigate foreign retaliation, however, limits will probably have to be set on the amount of the subsidy and the quantity of exports subsidized. One way lies through division of the foreign market with other countries by intergovernmental commodity agreements Although revision of domestic agricultural policy along the lines suggested in the CED report[1] would not only remove this particular incentive to restrictive agreements but would enormously strengthen our hand in negotiating for a reduction of international trade barriers, it still would not entirely relieve us of the need to formulate a policy directed toward intergovernmental control of farm commodities. Certain of the prewar agricultural-surplus problems will persist in the postwar period. No conceivable change in policy either here or abroad will exorcise, for example, immediate surpluses of wool and cotton, or a future surplus of sugar. In the absence of intergovernmental control, disposal of these surpluses by individual governments is likely to take forms extremely disruptive of international trade.

It can be seen therefore that, regardless of any change in domestic agricultural policy, the combined forces of existing commitments, the accumulation of war-induced surpluses

[1] Research Committee of the Committee for Economic Development, *Agriculture in an Expanding Economy*, New York, December, 1945.

and production capacity, the near exhaustion of domestic sources of strategic raw materials and the persistence of certain chronic agricultural surpluses will impel us to the formulation of a national commodity policy, frequently in concert with other interested countries. Whatever action we take with respect to particular commodities should be consistent with, or at least not in conflict with, the main objectives of our foreign economic policy. Two objectives, to which we are already extensively committed, are the facilitating of foreign investment, both public and private, and the reduction of trade barriers. The broad outlines of the foreign economic policy to which the author is willing to subscribe are admirably traced in the CED report on international trade policy.[1]

Although a defense of the lines of action there proposed lies outside the scope of this report, two considerations relating to our commercial policy in general and one that bears on our trade in raw materials in particular must be emphasized. The dominant economic consideration that should govern our commercial policy is that the United States will be, on a very large scale, a creditor country. If we are to be paid, and if other countries intend to honor their obligations, a primary requirement must be the attainment of a large and stable volume of multilateral trade. Our dominant political consideration should be to prevent the creation of security blocs and spheres of influence. Both considerations, economic and political, weigh heavily on the side of maximum reduction of international trade barriers. They are weighted further, as regards trade in raw materials, by the fact that, on balance, the United States' consumer interest in imports far exceeds her producer interests in exports. Even at low levels of national income, our raw material imports exceed our exports. This import balance rises rapidly with an increase in national income until, at high income levels, it is very large indeed.

[1] Research Committee of the Committee for Economic Development, *International Trade, Foreign Investment, and Domestic Employment*, New York, May, 1945.

Obviously, then, American interests in the field of commercial policy can be said to point very strongly in the direction of reducing discrimination and barriers to trade. This assumption underlies the recommendations on commodity policy set forth below.

International Commodity Consultation

American policy regarding a number of important international commodities should have the advantage of United States representation in an international commodity group. One such group has already been established for rubber. The proposed oil agreement contemplates a permanent international petroleum council open to accession by all interested countries. A study group has been established for concerted action on cotton. Any one of these groups has as its function not only the gathering of data on production, consumption, prices and stocks but also the appraisal of the effects of alternative courses of action on the commodity in question. Any nation's plans for disposal of surplus stocks, for handling synthetic production capacity and for acquiring sources of scarce materials will affect the economic and political interests of other countries. Establishment of machinery for periodic or continuous intergovernmental consultation on special commodity problems is therefore highly desirable. When a control scheme appears to be necessary, the study group is the proper agency to prepare the intended action. To the commodities already named, one might properly add copper, tin and nitrates as suitable subjects of international consultation.

Disposition of Synthetic Capacity

The prospects for control of nitrates and rubber, two important international commodities, have been drastically altered by the wartime construction of synthetic plants in the United States. So far as security goes, protection of our interests requires the continued operation of a fraction of this capacity, but it would

be a mistake to let the security argument persuade us to maintain high-cost domestic production at the expense of imports of the natural material. Although, for reasons explained elsewhere in this report, American participation in an international nitrate control scheme appears neither necessary nor advisable, it may prove more difficult in the case of rubber to establish a tolerable working balance between synthetic and natural production without some considerable degree of intergovernmental collaboration. In any future rubber control schemes, our potential synthetic capacity should assure us of a predominant influence in promoting greater stability and a lower level of prices.

Expansion of Consumption versus Restriction of Production

So far as possible, in disposing of chronic surpluses, intergovernmental action should be directed toward expanding consumption. It must be recognized, however, that the possibilities of increasing consumption by one-commodity regulation are distinctly limited. A properly functioning commodity agreement should embrace not only the investigation and promotion of new uses but the expansion of consumption among lower-income groups by two-price or other plans. The Brussels Sugar Convention of 1902 provided a model for reduction of trade barriers and subsidies to high-cost production, by international agreement. The commodity agreement, however, is not too useful a device for tariff and quota revision, as more recent instances have shown. If barriers to trade are to be reduced by international agreement, all imports, exports and the whole range of commercial policy devices must be brought under consideration. And if the consumption of a particular commodity is to be increased by measures other than a reduction of trade barriers, the necessary action will have to go considerably beyond one-commodity planning.

The role of commodity agreements in effecting a more

tolerable adjustment of supply to consumption tends principally toward restricting supply rather than expanding consumption. Although devotees of international raw materials planning see in commodity controls a device for the expansion as well as contraction of output, it should be noted that raw material production responds very satisfactorily to rising prices without benefit of control.

Conservation by Commodity Agreement

Conservation of natural resources, though ostensibly an objective in most commodity agreements, has been directly approached only in those regulating fishing. Here the fact that the resource is definitely exhaustible and subject to the control of no one country makes it necessary to limit the catch by international agreement if a continuous yield is to be assured So far as the author is aware, however, this compulsion to agreement is confined to the fishing industries. In all other raw material production, natural resources are under the control of particular countries, and their conservation is within the competence of individual governments.

There is no doubt that in many mining operations the stabilization of prices either at, or somewhat above, the competitive level would facilitate conservation. For most minerals, however, price stabilization could be accomplished only by extensive buffer-stock operations within the framework of an international agreement apportioning export and production quotas. The concentration of control in mining would very possibly defeat such an attempt unless a considerable degree of governmental intervention were used to prevent the benefits of output restriction and buffer-stock operations from being funneled into corporate treasuries.

To undertake the control of output and prices by intergovernmental commodity agreement in order to accomplish some degree of conservation seems at best a dubious procedure. Conservation can be cited as an additional advantage if

controls are necessary for other reasons, but, except for the international fishing industries, it is rarely, if ever, sufficient in itself to justify control.

Worker-owner Industries versus Large-scale Production

Basic to any public policy formulation on intergovernmental commodity agreements is the distinction between the highly competitive worker-owner production typical of agriculture and the large-scale production characteristic of most mining operations. Not only are labor resources relatively more important in the former, but variations in the price of the product are reflected directly in higher and lower labor incomes. Agricultural output responds slowly to increased prices, but once expanded it is extremely difficult to contract. Even in the face of very large price variations, the absence of monopoly elements, the impossibility of adequate cost calculation and the immobility of resources combine to make output stable. The difficulty of regulating output, the direct dependence of worker income on price, and the large number of workers employed together create a case for governmental controls. Almost nowhere in the extractive industries is there a comparable need for such government intervention to minimize price instability and maintain income adversely affected by persistent overproduction.

The argument that would limit to agricultural products such intergovernmental restrictive agreements as may be necessary is strong. But there are at least two metals, copper and tin, for which international control, with American participation, may well be desirable. Current copper stocks are huge, and scrap yields over the next few years will be sufficient to meet a very large part of total copper requirements. Production facilities were expanded during the war in all the important copper-producing areas of the world. The United States could take care of its own surplus by large-scale stockpiling and could permit domestic mining operations

to continue behind an adequate tariff barrier. However, not only are United States costs high, but our reserves of this extremely important war material are rapidly dwindling. Our own interests, therefore, as well as the desirability of sharing with other copper-producing countries the burden of surplus disposal and the scaling down of output, would seem to dictate a policy of participation in some sort of international copper control.

The case for participation in a tin agreement is very different. Here the operation of a control scheme is inevitable, and the only question is whether and on what terms the United States, as the principal consumer, will be allowed to share in the control. Not only in our own interest but in that of bringing tin control within the framework of a general international commodity organization, should we press for the most effective participation possible.

It was recommended in the first part of this report that the influence of the United States be cast in favor of a strong anti-cartel policy. If this course were followed, there would be few areas other than agriculture in which the imposition of an international control scheme could be justified; and in these few, of which tin and copper may be taken as examples, it is recommended that the control be public rather than private. In the absence of an effective anticartel policy, however, it is almost certain that attempts will be made to apply the old prewar cartel remedy to a postwar situation of excess capacity and fluctuating demand for raw materials and manufactured products. But the inevitability of restrictive agreements of some kind does not, in our opinion, justify an attempt to make these agreements public. Intergovernmental controls tend to be more effective, more durable and more rigid than private cartel arrangements. Yet monopoly challenged by periodic collapse, competition of outsiders and pressure of low-cost insiders for a larger share of total output is probably preferable to a comprehensive and inevitably inflexible government control scheme, except in those rare situations

in which restriction of output by intergovernmental agreement is necessary to prevent even more disruptive unilateral measures.

Quota Schemes

Prices, production, exports and stocks are the elements over which control is sought in a commodity agreement. Since, however, prices are influenced by variations in stocks and in export quotas, and since production control is viewed chiefly as a means of making export quotas effective, it will be useful to identify commodity agreements as either quota schemes or buffer-stock operations.

Any quota scheme restricts the volume of trade in the regulated commodity and tends to freeze it in existing channels and perpetuate high-cost production. It can obviously do little to relieve the excess of employment or investment or the chronic overproduction that usually begets such schemes, but it can at least cushion producer incomes until employment and investment opportunities elsewhere in the economy are able to absorb the underemployed resources. Since producers instigate quota schemes, they show a natural tendency to disregard consumer interests. High prices and low volume are generally preferred to large volume and low prices. Finally, quota schemes interfere extensively with private trading operations and, in fact, would operate most effectively in a state trading regime.

Clearly, quota schemes run strongly counter to America's interest in liberalizing commercial policy and in expanding international trade opportunities for private enterprise. We are nevertheless heavily committed to postwar participation in quota schemes for cotton, sugar and wheat, and to probable participation in similar schemes for rubber, tin, coffee and copper. Considering the range of possible alternatives, it would be the author's opinion that American participation in intergovernmental controls is desirable with respect to all these commodities, though for different reasons, and despite

the characteristics of quota schemes mentioned above. It is nevertheless highly important, from the viewpoint of our main commercial policy objectives, that (1) quota schemes be limited to the fewest possible commodities and for the shortest possible time; (2) positive measures providing for alternative employment and investment opportunities accompany any restrictive scheme; and (3) the scheme itself provide adequate representation for countries whose interests are mainly in imports and in the export of low-cost output.

The first condition is rendered easier of fulfillment by the fact that the organization of an effective quota scheme embracing all important sources of supply is an extremely difficult operation. This is but negative protection, however. In addition, we need to set limitations on our participation in commodity agreements, and we need to exert our influence, through international organization, to establish corresponding limitations for all commodity agreements. No quota scheme should be consummated before the aggravating economic situation has been thoroughly explored and the complete range of alternative possibilities canvassed. No quota scheme should be negotiated for a period longer than three years, and its renewal should be subject to the same prior investigation.

If the economic imbalance is caused by chronic overproduction, the quota scheme itself can contribute little toward its remedy. Neither developmental programs nor other measures designed to create employment and investment opportunities can be easily focused on the distressed area or industry. Permanent relief can only be provided through an over-all economic expansion, and this solution opens up the related question of a full-employment policy.

A rapid and sustained rate of industrial expansion would solve most raw material problems. It is hardly possible, however, to make the universal adoption of full-employment policies a condition for the approval of a restrictive commodity agreement. Policies and institutions conducive to economic expansion need to be actively pursued, while at the same time

restrictive schemes are limited to the smallest possible segment of the economy. The Bank and the Fund are such institutions, and to them should be added an International Commercial Policy Organization actively working for the reduction of trade barriers and trade discrimination. It might even be suggested that an international commodity organization require, as a condition of its approving a control scheme—and the United States might require as a condition of its participation—that the countries proposing commodity controls cooperate with these world organizations and subscribe to their purposes

A commodity agreement in which countries that are net importers of the commodity are represented is not the equivalent of one in which ultimate consumers are represented, but it is the most effective device available for assuring some consideration of consumer interests. When, as frequently happens, the success of a quota scheme depends upon the enforcement of import quotas by consuming countries, or upon the adherence of important countries having potential sources of supply outside the agreement, the representation of net importers is readily achieved. As a matter of principle, however, the United States should demand adequate representation of net importing countries as a condition of its participation in quota schemes, and a commodity organization should set the same condition on its approval.

Buffer Stocks

Raw material prices are notoriously unstable. If changes in price could be made to reflect only those changes in supply or demand conditions that give some promise of enduring, the gain in relative stability would substantially benefit both producers and users of raw materials. Much of the variation in raw material prices is the result of changes in market forces that could be offset by relatively small additions to or releases from a buffer stock Harvest variations in

supply and cyclical fluctuations in demand would require much larger purchases and sales, but even changes like these are capable of compensation. The cost of storage and the technical obstacles to storage rule out buffer-stock operations for a number of raw materials even if it be assumed that these operations could be sustained on a purely compensatory basis. Basically, however, the difficulties in the way of a storage plan lie (1) in properly estimating the level or trend of prices from which deviations are subject to compensation and (2) in keeping purchase and sales policies consistent with that level or trend in the face of pressure from interested groups. Most storage plans to date have foundered on one or both of these obstacles. Operations on a level higher than the market justifies, over the long run, will result in increased cost of storage, both because they serve to increase the quantities stored, and because they involve purchase at prices difficult to recover through subsequent sales.

Buffer-stock operations are greatly simplified if they are conducted in conjunction with a quota scheme. By subjecting supplies coming on the market to some measure of control, it is possible not only more easily to rectify mistakes in estimating a price level that can be sustained but to lessen political pressure on storage policy. If a quota scheme is inevitable, a well-managed buffer stock can contribute substantially to smoothing its operation, first by minimizing short-run price fluctuations and second by reducing the necessity for frequent quota changes.

In the absence of export or production control, however, international buffer-stock operations are not recommended, whether as a control scheme for particular commodities or as a general counter-cyclical "commodity corporation" dealing with a group of raw materials. Continuation of our agricultural price-support program, together with "ever-normal granary" operations, will inevitably result in the accumulation of huge stores of farm products in the United States. Our storage contribution to the world's surplus raw

material problems had best end there, without our attempting to finance the withholding of commodities overproduced by other countries.

The disposal of war-accumulated surplus stocks, however, will necessarily involve governments to some extent in buffer-stock operations. These surpluses obviously cannot be sold off at a fixed rate without regard to market conditions. On the other hand, too assiduous attention to price stabilization may well defeat the primary objective: disposal. The British Empire wool scheme sets 12 or 13 years as the period practicable for the disposal of surplus wool stocks. Both the time limit and the intergovernmental cooperation embodied in this plan are worth our consideration in formulating policies governing the disposal of surplus raw material stocks.

International Commodity Organization

There are a number of reasons why the United States should participate in some type of international organization to supervise control of particular commodities. Such an agency should investigate thoroughly the need for control, oversee the administration of such regulation as may be attempted, and assure the observance of those principles of organization that receive broad international approval. Although United States participation is necessary to the effective operation of most of the prospective raw material controls, and our influence might therefore be exerted through them, there are certain items like tea, tin, and possibly cocoa, from control of which we are excluded. If governmental commodity agreements are to be a recognized instrumentality of commercial policy, all agreements should be brought within the same international framework and subjected to similar tests and restraints.

If, furthermore, restrictive commodity agreements are to be made an exception to the broader objectives of trade-barrier reduction and economic expansion, a commodity

organization should be subordinated to a general international agency primarily dedicated to the removal of restrictions on the flow of goods in international trade. Commodity planners are prone to conceive the public interest in terms of the well-being of their own producers, and an international commodity organization, unchecked by broader policy considerations, might view as its task the promotion rather than the restraint of commodity agreements. Manifestly, the creation of international machinery does not itself assure the adoption of particular policies, nor can we, in any future international commercial policy organization, count on unalloyed influence in the direction of trade-barrier reduction. Nevertheless, the recommendations of such an organization are more likely to be directed toward expansion of international trade than are those of an agency concerned exclusively with commodity problems. International commodity policy is properly a branch of over-all commercial policy, and this subsidiary relationship should be fully recognized in whatever international machinery may be devised.

V. ORIGINS AND AIMS OF COMMODITY AGREEMENTS

INTERGOVERNMENTAL agreements relating to a particular commodity may take many forms and be directed toward a variety of objectives. One of the most common forms is the bulk-purchase arrangement whereby one government assures its requirements of a given commodity by a purchase agreement negotiated with another government. In fact, most of the goods offered for sale in world trade during the war moved under bulk-purchase arrangements. Barter deals, like the exchange of United States cotton for British rubber immediately before the war, represent another form of intergovernmental commodity agreement.

Occasionally a government allocates import quotas to its principal suppliers of a particular commodity. In 1937, for example, the British government consummated a beef agreement allotting import quotas to Australia, New Zealand, Eire, Argentina, Brazil and Uruguay. Under the terms of an inter-American coffee agreement negotiated in 1940, the United States allots import quotas to the coffee-exporting countries of Latin America. Security considerations revolving around hemisphere solidarity provided the primary impetus for the coffee agreement.

Other types of intergovernmental agreement embrace all the principal exporters of a commodity and, with or without consumer representation, attempt to control the world trade in it and fix world market prices. The tin and rubber agreements were of this sort, and so are the proposed wheat and the existing sugar agreements to which the United States is party.

It is with this particular type of arrangement, the so-called "multilateral commodity agreement" aimed at encompassing world trade in a particular commodity, that this chapter is primarily concerned. Although arrangements covering avia-

tion and perhaps other industries of the public utility type show a certain similarity to commodity agreements, they present special problems not considered here. Even within this limited compass, however, there are still several kinds of multilateral commodity agreements, of which discussion will be postponed to later chapters.

A CONDITIONS FAVORABLE TO COMMODITY AGREEMENTS

The particular type of intergovernmental commodity agreement with which we are concerned is an instrument that came into use during the interwar period, partly as a result of economic dislocation induced by the First World War. The increase in agricultural production outside war-blockaded Europe left the world with persistent surpluses of certain crops for which there was no adequate market. The international sugar and early wheat agreements in particular were to some extent the by-product of such war-induced overexpansion.

However, as Rowe has pointed out, there were two other and more basic causes of the emergence of unmanageable raw material surpluses in the interwar period.[1] The first was the rapid and continuous flow of technological improvements in commodity production throughout all parts of the world. New varieties of seed, new uses and kinds of machinery and the opening of new and favorable areas of cultivation made for a continuous expansion of agricultural output unchecked either by the slow rate of increase of consumption or by falling prices. As illustration we need only cite the introduction of new and superior varieties of sugar cane in the East Indies, the opening up of low-cost cotton plantations in Brazil and of coffee plantations in Central America, and the expansion of native rubber cultivation, particularly in the Netherlands

[1] J. W F Rowe, *Markets and Men; a Study of Artificial Control Schemes in Some Primary Industries*, The Macmillan Company, New York,1936. *Cf* M T Copeland, *A Raw Commodity Revolution* (Bureau of Business Research of the Graduate School of Business Administration), Harvard University, Boston, 1938

East Indies. These and parallel developments were beginning to create difficult surplus problems even before the depression of the 1930's.

A second factor augmenting world raw material surpluses was the rise of economic and, in particular, of agricultural nationalism in the interwar years. European and British dependence on imported foodstuffs was lessened by governmental encouragement, for security reasons, of local agricultural production. Grains, sugar, fats and oils were all protected or subsidized. Development of synthetic products—fibers, rubber, drugs and pharmaceuticals, and fertilizers—strengthened the economic independence of countries preparing for war but intensified the problem of surpluses faced by raw-material-producing countries.

In the 1930's a disastrous shrinkage in demand further accentuated the gravity of their situation. Although prior to 1921 a number of international commodity controls had already been introduced, the decade of the 1930's saw a considerable expansion in the scope of these arrangements.

Management of raw material surpluses is not, of course, the only reason for intergovernmental commodity agreements The notorious instability of raw material prices creates at least one problem for which international buffer stocks seem to offer a solution. Ends that may also be served by intergovernmental commodity agreements include the conservation of irreplaceable resources, elimination of wasteful cropping and other methods of exploitation, application of raw material sanctions against potential aggressor nations, and securing of equitable access to scarce strategic materials. But, before examining these objectives further, it must be emphasized that the preeminent reason for the introduction of international commodity controls is to be found in the persistence of acute raw material surpluses, and that the postwar period is not likely to witness their disappearance.

The war induced an expansion of agricultural and mineral output that will challenge disposal. Technological innova-

tions in raw material production have by no means run their course. How extensive the surplus problem is likely to be will depend, of course, not only on the output of particular commodities but on the prevailing level of economic activity and the volume of international trade. The postwar outlook for raw materials is examined more particularly in the next chapter.

B. THE ANTECEDENTS OF COMMODITY AGREEMENTS

Commodity agreements have frequently become intergovernmental only after prior attempts at other types of control had failed. The most important antecedents of intergovermental agreements have been (1) private cartel arrangements and (2) national valorization or price-supporting schemes.

Existing or prior agreements covering rubber, tin, tea and a number of other products first saw the light of day as purely private cartel arrangements. Lacking the support of governmental authority, however, they were too weak to accomplish the restriction of exports and production for which they had been created.[1] Ordinary business chicanery and the growing competition of producers outside the cartels kept their effectiveness in jeopardy, and it was mainly to prevent a breakdown of private controls that governments intervened. It is worth noting that government intervention was not undertaken at the insistence of exploited consumer interests but on the solicitation of important producing groups.

Many an actual or projected commodity agreement has developed out of a national scheme to support or lift the prices of given commodities. If an international cotton agreement

[1] In general, the fewer the producers the more likely it is that they will be able to come to a mutually satisfactory arrangement without the intervention of government. This is particularly true if the market position of these producers is strengthened by patent controls, the pooling of which may provide the essential basis of the agreement Industries with a large number of producers may be forced to enlist the support of governments to accomplish what others with a high degree of concentration can accomplish privately

comes into being, it will be largely through the efforts of the United States to combine price support for domestically consumed cotton with the assurance of a place for American cotton in the world market. The present and previous coffee agreements followed Brazil's attempts over several decades to manage single-handed its recurrent coffee surplus. The existing sugar agreement and its predecessor, the Chadbourne plan, grew out of Cuba's unsuccessful efforts to handle her sugar surplus by unilateral action. In each case, the country principally interested in control as a means toward price support has seen its share in the world market decline in favor of uncontrolled areas.

An effective multilateral commodity agreement is, fortunately or unfortunately, extremely difficult to consummate. The truth of this statement will, in all probability, be underlined by the international cotton agreement now in process of negotiation. It is much easier, though less effective, to undertake national action, and, though again less effective, it is in many cases much easier to organize a private cartel than an intergovernmental agreement. To get low-cost producers into a restrictive agreement of any kind, national or international, public or private, is always difficult. The reluctance of Dutch interests to enter the sugar, rubber and tin agreements is a clear-cut example. If the commodity surplus is acute in only one country, it may require extraordinary measures, such as a threat of heavy export subsidies, to force other producing countries into an agreement

C OBJECTIVES OF INTERGOVERNMENTAL COMMODITY CONTROLS

For purposes of discussion, the objectives of multilateral commodity agreements may be classified as the promotion of (1) health and morals, (2) security objectives, (3) conservation, (4) price stabilization and (5) the management of surpluses. The first three may be disposed of in rather summary fashion, since it is with price stabilization and the

management of raw material surpluses that this report is primarily concerned

Health and Morals

International regulation of the trade in opium and other drugs and narcotics is a matter of long standing and small mystery Since these are commodities entering into international trade and since the regulation attempted is by intergovernmental agreement, the subject properly belongs in a discussion of commodity agreements. It is included here merely for completeness of classification.

Security Objectives

The pursuit of security objectives is a more novel aspect of international commodity agreements, and potentially more important. In the postwar period, intergovernmental agreement may be desirable to prevent a scramble for scarce strategic materials desired for national stockpiling or other security purposes. The imposition, by international agreement, of mineral, oil or other commodity sanctions upon potential aggressors constitutes another type of security objective, one that requires extensive regulation of the commodities in world trade.

The oil interests of the United States, Great Britain, France and the USSR in the Middle East are a source of potential friction that may be alleviated by intergovernmental action. The petroleum agreement between the United States and Great Britain now awaiting ratification is an open-end affair, and Russia, France and other countries having interests in oil should be invited to participate as soon as may be. The proposed oil agreement, of course, has other objectives than security interests. These will be discussed later.

Most of the great powers stockpiled strategic materials before the war, and it is probable that they will do so again. A number of strategic materials, like copper, will be available

in quantities more than ample for all stockpile requirements. Others will be scarce but, pending any knowledge of the size of projected stockpiles, it is impossible to say whether requirements for strategic materials will or will not produce a competitive scramble for these materials. If they do, international agreement on timing, rate and areas of purchase may be useful.

Experience with methods and techniques of economic warfare should by now have indicated to what extent the military capabilities of a particular country can be frustrated by denying it access to external resources. The exaggerated results expected from Allied strategy at the outset of the Second World War were almost entirely nullified by the degree and duration of German self-sufficiency. In this age of synthetics and totalitarian government, certain of the great powers could make war indefinitely without access to resources outside their borders. The techniques of economic warfare could, nevertheless, be applied to more limited areas with considerable success. If applied in peacetime, however, as economic sanctions against a potential aggressor, these methods would require, if not complete control of transport into the offending country, then agreement among all the principal users and producers of the commodity to which access is to be denied.

After analyzing the difficulties involved in the application of mineral sanctions, an authority on this subject concludes:

> Any control plan must therefore contemplate world-wide cooperation and gap-proof control at all times of imports and exports of all metal products, primary and secondary, and scrap, and to and from all countries It will require something like a world-wide system of metal allocations to thousands of metal dealers, fabricators and manufacturers, and complete control over all their export and import transactions.[1]

[1] P D Merica, "Mineral Control—Wise or Unwise?," *Mining and Metallurgy* (April, 1944) This issue is devoted to a symposium on "Control of Mineral Supplies to Preserve Peace."

Although this view may be somewhat extreme, and although sanctions could be applied much more easily to certain commodities than to others, the fact still remains that the administration of economic sanctions in peacetime would demand a high degree of international cooperation. Such cooperation, however, is contemplated by the United Nations organization, which assigns to the Security Council responsibility for the formulation and administration of economic sanctions. Application of a commodity sanction would involve a particular kind of multilateral commodity agreement.

Thus far we have been discussing security objectives as instruments for the prevention of war. Security, however, has another face: the preparation, in a particular country, of the instruments of war. The stockpiling of strategic materials is one step in that direction; others include the safeguarding of potential sources of strategic raw materials and the maintaining of synthetic production capable of replacing imported raw materials. The latter objectives, as they affect conservation, anticipate somewhat the discussion in the next section.

During the war the United States depleted its reserves of petroleum and of certain minerals at an alarming rate According to the Army and Navy Munitions Board,

> . . . the quantity of minerals produced in 1943 was 57 per cent greater than the output in 1918, and 23 per cent above that in the boom year 1929 Unless new reserves are discovered, therefore, our country in the future will be even more dependent upon foreign sources than it has been in the past and, to a large extent, stockpile goals must therefore be raised The continuance of the existing domestic program of exploration of natural resources is clearly imperative. In addition, the rapid depletion of our domestic reserves emphasizes the extreme importance of developing a program for obtaining information on the location and extent of world resources and for acquiring stockpiles of raw materials in which this country is largely deficient.[1]

[1] 79th Congress, 1st Session, Document No 5, Jan 6, 1945 One does not have to take this statement, or similar evaluations emanating from the U S Department of the Interior, at face value to recognize we are facing a scarcity situation

Apart from such measures as these, elementary precaution would appear to dictate the preservation, within such areas as we are capable of defending, of petroleum and other strategic resources in the ground. This would imply that production in, let us say, North America and the Caribbean area, of petroleum, bauxite, lead, zinc, copper, mercury and a few other strategic materials should be curtailed in favor of imports from outside this strategic area. Such a policy would be extremely unpopular with the producers of these materials, and any extended program of conserving strategic materials in the ground might have to take into account the primary and subsidiary vested interests of capital and labor in the areas affected.

The preservation of resources beyond American territory would require international agreements embracing at least those countries within the conservation area and, perhaps, producing countries outside this area. As regards oil, for example, the United States might achieve two important security objectives by international agreement: the avoidance of international conflict over control of the limited oil resources of the world, and the lessening, insofar as possible, of the drain on North American and Caribbean oil supplies. If and when the proposed oil agreement is broadened to cover the principal oil-producing and consuming countries of the world, a forum will have been created for the discussion, if not the reconciliation, of the interests of the participants. The agreement, besides relieving the production and marketing restrictions under which American companies operating

in a number of strategic materials. On the other hand the United States military authorities have not begun to realize the possibilities of substitution in the economizing of scarce materials. Germany managed to fight quite a sizeable war with a fraction of our industrial material requirements. Contrast, for example, the 200,000 tons of copper annually available to Germany with the 2 million tons that left the American military program chronically short Technological development, moreover, continually encourages the exploitation of low-grade resources and diminishes such loss in efficiency as may be involved in the process of substitution

in the Middle East now function, might go further and encourage a rapid development of the vast Middle Eastern fields, thereby conserving to some extent the dwindling Western Hemisphere reserves. The chief opposition to such a development may be expected to come from domestic oil interests in the United States. Similarly, international agreement with respect to other strategic materials might well facilitate the exploitation and use of resources outside the American strategic area.

The disposition of war-developed synthetic rubber and synthetic nitrate plants raises security questions of particular importance. Either or both may be handled by unilateral action, but both involve international considerations and may properly call for intergovernmental agreement

The United States has a synthetic rubber capacity in excess of 1 million tons—almost double the prewar domestic civilian consumption and slightly below total world consumption. Although little definite is known about the actual or prospective cost of synthetic production, it is doubtful whether anything other than special-purpose rubber could compete with crude in a free market in the foreseeable future. According to Knorr, a price of 8 cents a pound is adequate to insure a fair profit to efficient estate operations and bring forward ample quantities of native rubber.[1] The experience of the 1930's indicates that, even at prices much lower than this, production will persist in large volume.

For the next two or three years the total available crude and synthetic rubber production will be required to meet current needs and to replace depleted stocks. The world at that point will be confronted with nearly 3 million tons of rubber capacity (roughly 1,300,000 synthetic and 1,600,000 crude) against prospective markets, on fairly optimistic assumptions, for not more than 1.5 million tons.

[1] K E Knorr, *Rubber After the War* (War-Peace Pamphlets, No 4) (Food Research Institute), Stanford University Press, Stanford University, Calif, 1944, p 35.

Security interests clearly demand the retention of some part of our synthetic capacity. On the other hand, the maintenance in production of the whole of our existing plant, or even of a volume of synthetic production sufficient for civilian requirements, is unnecessary to our security and inadvisable for other reasons. In view of the rapidity of technical improvements in this industry, the maintenance of idle, stand-by capacity on any considerable scale is probably not desirable.

It may be ventured that an annual synthetic production of not less than 200,000 tons or not more than 400,000 tons would amply protect the security interests of the United States. The carrying of large manufacturers' stocks should be encouraged, and, if further protection seems necessary, a revolving military stockpile of rubber might be maintained. These stores, plus the yield of secondary rubber, which, in the United States, is large and expansible, should be ample to tide over any emergency expansion of domestic synthetic production. It would probably be more economical to rebuild a part of our capacity every twenty years than to try to maintain continuous high-cost production.

Other considerations, moreover, favor a continued reliance on the import of sizeable quantities of crude rubber. Exports of rubber and tin from the Netherlands East Indies and the Malay States are a source of dollars with which imports from the United States are paid. We also have interests in Southeast Asia that can be furthered by continued economic intercourse. Finally, elimination of the American market might conceivably lead to the development of bilateral trade between this area and Japan, a development we might not regard as being in our interest.[1]

Our security objectives in rubber might, of course, be attained by unilateral action. The United States could

[1] *Cf* J B Condliffe, "Economic Power as an Instrument of National Policy," *American Economi Review*, Supplement, Vol. XXXIV, No. 1, Part 2 (March, 1944)

either subsidize or protect the desired volume of synthetic production and let the rest of the rubber world take care of itself. There are, however, strong reasons for concerting our action on rubber with that of other countries, at least to the extent of exchanging information on projected policy and undertaking a combined study of the whole problem. The United States has already joined with Great Britain and the Netherlands in an International Rubber Advisory Committee and should find this participation useful in working out a national policy on rubber. Whether or not a chronic surplus, requiring more positive action, will eventually confront the rubber industry depends mainly on what we do with our synthetic capacity.

The disposition of our synthetic nitrogen capacity, which presents a somewhat similar problem, is discussed in a later chapter.

Conservation

Conservation of natural resources appears as a direct or indirect objective in nearly all international raw material schemes, public or private. In many the conservation argument is clearly window dressing utilized to justify restriction of output or exports for quite other purposes. Conservation *is*, however, involved in all agricultural and extractive industries, and the issue it raises is twofold: whether the waste, in any proper economic sense, caused by an uncontrolled use of resources is sufficient to justify governmental or private cooperative intervention; and whether, if such intervention is undertaken on the grounds of conservation, the advantages are not outweighed by other disadvantages.

Conservation may be practiced indirectly by assuring to producers prices and incomes sufficiently high and sufficiently stable to permit an economic use of the soil or of mineral deposits; it may also be enforced directly by regulating methods of exploitation and quantities extracted.

Prolonged periods of low producer incomes tend to over-

cropping and exhaustion of the soil and to wasteful exploitation of mining properties. As T. W. Schultz puts it, an agricultural investment is usually not liquidated, with consequent transfer of resources to other uses, "until the farmer has exhausted the soil of his farm and himself after years of futile effort to stave off bankruptcy."[1]

Concerning mining properties, the National Resources Planning Board reported in the midst of the depression, "Existing mines were laid out with a certain price level in mind and with a certain anticipated life. When prices collapse, the initial plan of operation must all too often be discarded. Today mine operators are forced to neglect the most elementary work of maintenance."[2]

Conservation effected through maintaining price levels and incomes is defended on the ground that it avoids any detailed overseeing of production units and processes. The incomes thus maintained, however, may obviously be used for other than conservation purposes. Moreover, it is frequently impossible for a country to sustain producers' incomes and continue to export without subsidy the output of these producers in a competitive world market. Thus price or income maintenance in the domestic market, whether intended for conservation or other purposes, may lead in the direction of international commodity arrangements.

"The raw material problem," as Watkins observes, "is preeminently, though not exclusively, an international problem. Climatic zones and the geographic pattern of the geologic occurrences of minerals conform neither to the political subdivision of the earth's surface nor to any demographic distribution pattern, historical, actual or prospective."[3]

[1] Theodore W. Schultz, *Agriculture in an Unstable Economy* (Committee for Economic Development Research Study), McGraw-Hill Book Company, Inc, New York, 1945, p 30.

[2] Report of Planning Committee for Mineral Policy, 1934, p 409

[3] M W Watkins, "Scarce Raw Materials; an Analysis and a Proposal," *American Economic Review*, Vol XXXIV, No. 2 (June, 1944)

To approach the problem of conservation via price and income maintenance schemes for industries in which wasteful methods of exploitation are associated with inadequate or unstable income prospects would lead us very far indeed in the direction of either private cartel or of intergovernmental restrictive agreements. The kinds of trade restrictions involved in the pursuit of these objectives by private cartels have been discussed in Part I, and the restrictions attending intergovernmental agreements will be discussed in later chapters in Part II.

Except in a group of industries discussed below, conservation has never been the primary objective of commodity agreements. Such improvements as have been achieved in resource utilization have been incidental to other objectives. Until there is convincing evidence to show extravagant waste of irreplaceable natural resources, national policy toward international commodity controls should probably continue to be framed primarily with objectives other than conservation in mind However, such conservation as may incidentally be achieved must be credited to commodity controls.

A series of international fishing agreements was justifiably undertaken for conservation purposes. To quote the authority on this subject, "The basic principle of exploitation of all marine resources is that marine resources must be regarded as crops to which an appropriate harvesting policy must be applied. This is especially true of marine species in which the number of adults and the intensity of fishing have great influence on future abundance."[1]

Since the greater part of the industry consists of high-seas fisheries to which all maritime nations have access, application of the principle of sound harvesting depends upon international agreement. In 1911 an agreement regarding fur seals was consummated between the United States, Great

[1] Jozo Tomasevich, *International Agreements on Conservation of Marine Resources* (Commodity Policy Studies, No 1) (Food Research Institute), Stanford University Press, Stanford University, Calif, 1943, p 50

Britain, Russia and Japan. It expired in 1941, when Japan withdrew, but will clearly have to be renewed. An agreement between the United States and Canada, signed in 1923 and still in effect, regulates the catch of Pacific halibut. The American-Canadian convention of 1930 applying to Fraser River Sockeye salmon provided for a long period of study and has had little effect. The relatively few countries involved has made international agreement easier in these areas, but international regulation of whaling, in which the interests of many more countries are at stake, has proved much more difficult to achieve. Although 26 nations managed to agree to the whaling convention of 1931, Russia, Japan, Chile and Argentina abstained, and, with the exception of Argentina, the same countries refused to adhere to the 1938 agreement.[1]

Price Stabilization

International commodity agreements have as their primary objectives the control of price fluctuations and the management of surpluses With respect to foodstuffs, the record is one of sustained consumption and production (subject to crop variations) throughout the cycle but of great variation in prices and, consequently, in producer incomes. With respect to industrial raw materials, both consumption and prices show wide cyclical variations. The production of such cultivated industrial raw materials as cotton and rubber is

[1] Karl Brandt, *Whale Oil, an Economic Analysis* (Fats and Oils Studies, No 7) (Food Research Institute), Stanford University Press, Stanford University, Calif, 1940 The author concludes the chapter, "International Cooperation in Whaling," with the following comment "Thus far, the experiment toward international regulation of whaling has yielded some results that represent limited progress in the right direction They have reduced and perhaps practically stopped the pursuit of whales in their mating and nursing grounds, and the slaughter of lean whales has been reduced But the ultimate purpose of international regulation, namely the prevention of over-fishing, has not been attained."

An international whaling conference was held in London, January, 1944, which recommended to the participating countries certain amendments to the 1938 agreement. With Germany and Japan under control a more effective regulation of whaling may now become possible.

fairly well maintained; stocks accumulate as consumption falls. Mineral production, which is usually highly concentrated, tends to vary more closely with consumption. For cyclical and other reasons, all raw materials exhibit an extraordinary degree of price variation.[1]

To quote a recent report,

> During the last twenty years, the price of wheat and of jute has been halved three times within about twelve months, the price of cotton three times in periods of under eighteen months. The price of copper and of lead was halved four times within periods of two years and doubled three times even more rapidly. The price of zinc was halved twice in eighteen months, of tin twice in twenty-four months; zinc and lead doubled in price three times in two years or less; copper three times in eighteen months. On one occasion the price of coffee was halved in eight months, on another the price of sugar trebled in four months Between 1920 and 1933, the price of crude rubber fluctuated between four cents a pound and twenty-five times that amount, and was on several occasions doubled or halved in the space of a few months.[2]

Of these fluctuations, some of the more extreme were, it is true, precipitated by the formation or collapse of ill-advised national and international price-control schemes; but the causal direction moves from price variation to attempted price control, and not the other way around.

Politically, the easiest way to stem a continuing decline in the price of a storable commodity is to undertake a government purchase and storage program. The economic history of the last two decades provides not only abundant examples of

[1] *Cf* Watkins, *op cit*, "The speculative feature appears to inhere in the combined influence, in every raw material industry, of two or more of the four conditions enumerated below These are (1) imputed demand, (2) weather variability, (3) hidden resources and (4) exhaustibility of sources of supply. The first factor listed is the sole one common to all raw material industries, but it alone would probably be adequate to account for their highly speculative character In any case, actually, it is always linked in these industries with one or more of the other factors mentioned."

[2] "The Transition from War to Peace Economy," *Report of the Delegation on Economic Depressions*, Part I, League of Nations, 1943, pp 23, 24

the failure of such governmental attempts but also the reasons why they failed: in part because no distinction was made between temporary price declines, seasonal or cyclical, and price declines due to chronic overproduction, in part—and this is particularly relevant to buffer-stock policy in the postwar period—because the political pressure of producer interests prevented management from using all the available economic intelligence.

These observations could be illustrated from the history of almost any raw-material-producing country. In the United States the storage experience of the Federal Farm Board is a case in point. The advent of war saved the subsequent storage program of the Commodity Credit Corporation in the nick of time By 1940 the Middle West was dotted with steel bins erected by the CCC to store grain; farmers had increased their storage space, and old schoolhouses, churches and other abandoned buildings were bulging with grain. The war changed these surplus stocks into a valuable asset, but, had there been no war, the storage program of the CCC would have been disastrous.

Nevertheless, despite all previous debacles, the postwar period will again witness a reversion to the use of buffer stocks as a remedial device to mitigate the instability of raw material prices.

Buffer stocks may be used to level off price variations in a single commodity; they may also be used in a countercyclical general raw material buying and selling program. When limited to a single commodity, either on a national or international scale, buffer stocks may be accumulated and sold to even out harvest or other short-run price variations: this is presumably the purpose of an ever-normal granary. They may also be used to relieve cyclical price variations, or, as in the British Empire wool disposal scheme, to liquidate gradually an accumulated surplus. Any of these operations may be conducted independently or as a part of quota programs. Buffer stocks, in their role of price stabilizers and in their relation to

quota schemes, are examined in Chap. III. At this point we are concerned with general counter-cyclical raw material buying and selling programs.

The possible use of buffer stocks on a national scale has already arisen in discussions of a strategic stockpile for the United States.[1] One subject for debate is whether this stockpile, if created, should be exclusively military, with quantities determined by prospective emergency needs and withdrawals limited to military exigencies, or whether it should be essentially a buffer stock of materials useful to the armed services. The cushioning effect of a frozen military stockpile would be limited to the retention of war-induced surpluses, which would otherwise be thrown on the market, and to the postwar acquisition of commodities in excess production. In the case of scarce strategic materials, stockpile acquisitions, unless carefully timed, might accentuate rather than mitigate price variations.

Since among strategic materials there are a great many international commodities subject to marked price variation, a military stockpile used for buffer-stock operations could conceivably achieve the effect of a counter-cyclical purchase program, at the same time that it serves its military purpose.

[1] The use of the stockpile created by the British "Essential Commodities Reserve Act" for the purpose of stabilizing raw material prices within the British Empire was advocated by Keynes before the war *Cf* J M Keynes, "The Policy of Government Storage of Foodstuffs and Raw Materials," *Economic Journal*, Vol. XLVIII, No. 191 (September, 1938), p 449

Keynes asserts that

It is an outstanding fault of the competitive system that there is no sufficient incentive to the individual enterprise to store surplus stocks of materials, so as to maintain continuity of output and to average, as far as possible, periods of high and low demand The competitive system abhors a vacuum, because stocks yield a negative return in terms of themselves It is ready without remorse to tear the structure of output to pieces rather than admit of them, and in the effort to rid itself of them. Its smooth and efficient working presumes in practice, as stringently as the static analysis presumes in theory, a steady rate, or a steady growth of effective demand. If demand fluctuates, a divergence immediately ensues between the general interest and the course of action in respect of stocks which is most advantageous for each competitive enterprise acting independently

There are, however, numerous economic difficulties in the way. Among the more serious are to be reckoned the problem of recognizing business cycle turns and the difficulty of distinguishing, with respect to a single commodity, a cyclical from a more permanent price variation. Enough, however, is known of trends so that military buffer-stock operations could produce a genuine counter-cyclical effect *if* the management of the stockpile were permitted a sufficient measure of discretion. It is entirely improbable that this would be the case.

The real obstacles to general buffer-stock operations are political. From the debate on national stockpile legislation it is already obvious that high-cost American producers will press for the subsidizing of their operations at the expense of the stockpile, that, instead of advocating purchases abroad to conserve American mineral resources seriously depleted by the war, they will insist on a "buy American" clause; that they will exert pressure in favor of continuous purchase but against sales, now or at any other time The merit of a frozen military stockpile is that it sets certain limits on the amounts that may be purchased. In a country in which producer groups are as well organized as they are in the United States, a military stockpile created for buffer-stock purposes is not likely to serve as a counter-cyclical raw-materials-purchase program.

An international buffer stock might have certain advantages over a national one, but it would also have its disadvantages. An "International Commodity Corporation" of the sort suggested by Hansen[1] would not be limited by military con-

[1] Alvin Hansen, "World Institutions for Stability and Expansion," *Foreign Affairs*, Vol 23, No 2 (January, 1944)

Equally important [as an international bank] from the standpoint of preparing a world-wide attack on deflation would be the work of an International Commodity Corporation, designed to buy, store and sell international raw materials and to act as a buffer in the raw materials market. In the event that a deflation of raw materials prices seemed to impend, the International Commodity Corporation should make large purchases of storable raw materials. It would permit the free play of market price forces within upper and lower ranges for each commodity Buying operations would be indicated as soon as the price pierced the

siderations; it would buy and sell international raw materials solely for price-stabilization purposes. Its international structure might perhaps defeat the preferential and discriminatory practices inevitably associated with national buffer-stock operations and might even counteract local pressures, but the larger economic problems might in some respects be more difficult. An international corporation would be dealing in world-wide commodities, exhibiting different seasonal, cyclical and secular characteristics. Sources of information on which to base its analysis and judgment would in certain areas be scant, and in others nonexistent.

Here, again, the fundamental obstacles would in all probability be political. Governments would tend continually to press for a higher level of prices for their own exportable raw materials, and would interfere with any attempt by the management to liquidate accumulated stocks. It is doubtful whether, at this stage of international organization, governments would endow an international authority with sufficient discretion in the determination of world commodity prices to permit the effective functioning of an international buffer-stock corporation.

The financing of an international commodity organization presents some very perplexing problems. If, in a depression, the Corporation accumulated stocks of the principal raw materials involved in world trade, the over-all purchase sums would very probably be large. What currencies would be utilized, and in what proportions? Would the size of a nation's financial contribution be determined by the value of its commodity stocks in the Corporation fund or would the criterion be ability to lend without reference to any benefit? If lending ability should be the criterion, the financial contribution of the United States would be large. Would authority in the Corporation be divided proportionately? If so, how

lower limit, and selling operations as soon as it rose above the upper limit The upper and lower limits should be adjusted from time to time according to fundamental trends of normal demand and supply

resources out of the area of overproduction, rather than continued resort to export subsidies, barter arrangements and other undesirable commercial practices.

The prewar history of quota schemes, it must be confessed, is not such as to engender confidence in the ability or willingness of participants to eliminate high-cost production, to shift resources to other uses or to adjust output to demand at prices that consider consumer as well as producer interests. In fact the management of quota schemes has behaved in quite the opposite fashion. In their prewar operations, these schemes tended to preserve the production *status quo* and freeze it in existing geographical patterns of distribution.

A quota arrangement, it has been said, favors

> . . high-cost producers by preserving for them a share in the market which otherwise they would almost certainly have lost, and, as time passes, it lets matters get worse by impeding any shift of production to low-cost areas When a Control Council operating a quota scheme is faced with a decline in demand it always reduces the quota releases, never the price Its principle is that of all producers, *viz*, to sell a little for a lot, not a lot for a little.[1]

Indeed, about all that can be said in favor of prewar intergovernmental quota schemes is that they may have prevented even worse alternatives for disposing of raw material surpluses. A scramble for international markets by export subsidy, bilateral clearing arrangements, barter deals and the like would probably have operated to reduce even more effectively the total volume of world trade.

Before the war, however, intergovernmental commodity agreements had already begun to move away from an exclusive concern with short-run producer interests and toward a more general concern with broad public interest. Out of earlier failures, moreoever, grew an awareness of the conditions necessary to the effective functioning of international commodity controls

[1] P. Lamartine Yates, *Commodity Control, A Study of Primary Products* (Fabian Society), Jonathan Cape, Ltd , London, 1943, p 231.

Past experience has shown, for example, that inclusion of all the principal export sources is necessary to an effective agreement; that export controls are not likely to succeed for long without national control of output, that for many, if not all, commodities price-stabilizing measures without export controls are likely to fail, and that acreage controls are, in general, ineffective.[1] Experience gained from previous commodity agreements will no doubt be valuable in framing future control better calculated to serve producer interests, but unless they also serve a broader interest, commodity agreements will probably meet with active and effective opposition from countries adversely affected by their operation

Commodity agreements are not likely to become an important international control device unless, in the management of postwar raw material surpluses, means are found (1) to encourage production in and export from low-cost areas, (2) to shift unneeded resources into other channels and (3) to establish a price policy designed to serve long-run consumer interests. Whether or not commodity agreements and, in particular, quota schemes may be expected to fulfill these conditions will be discussed in a later chapter.

Concluding Remarks

Although other types of intergovernmental commodity agreements have been mentioned in passing, attention will be limited in the ensuing discussion to buffer-stock and quota schemes. Our primary concern, therefore, will be with the stabilization of raw material prices and the management of surplus stocks and surplus production; certain questions that have already been raised will be examined further. Is the representation of consumer interests practicable and, if so, can it seriously affect price policy? To what extent can buffer stocks be managed without controlling export quotas? Can buffer-stock operations stabilize short-run price fluctuations

[1] *Cf* International Labour Office, *Intergovernmental Commodity Control Agreements*, Montreal, 1943, p XVII

and at the same time contribute to long-run adjustment of output? Are quota schemes compatible with a shift of production to low-cost sources and with an elimination of excess capacity? Answers to these and other questions must be sought as we examine existing and proposed commodity agreements.

VI. POSTWAR OUTLOOK FOR PARTICULAR RAW MATERIALS

A GENERAL CONSIDERATIONS

THE decade before the war saw a drastically reduced demand for most raw materials followed, for many agricultural products, by an inadequate recovery. War and transitional requirements have, for the time being, reversed this situation. Except for a few areas deprived of markets by shipping limitations, the raw-material-producing countries within the Allied orbit have enjoyed an unlimited demand for their products. Other than wool and cotton, prewar agricultural surpluses have disappeared or are disappearing. The terms of trade for raw materials as against industrial products have almost everywhere improved. European requirements for relief and rehabilitation, and the replenishing of inventories there and elsewhere, will assure good markets for most raw materials in the immediate future.

After this relief and restocking period is over, however, what then? The answer obviously depends, in part, upon the soundness of economic conditions and of the commercial and other postwar policies pursued by governments. Undoubtedly, of most importance will be the state of production and employment in the principal industrial countries of the world and particularly in the United States. This country has come to be on balance an importer of raw materials, and the magnitude of our net imports rises rapidly with industrial employment. Assuming a national income of 130 to 140 billions, our excess of imports over exports of raw materials and unprocessed foodstuffs will be of the order of 750 million to a billion dollars.

A second influence vitally affecting the raw material situation will be the attitudes of the principal trading nations of the world toward trade barriers. In some respects this outlook is promising. There is evidence that the United States is be-

coming aware of the implications of her creditor position and is ready to take the lead in international efforts to reduce trade barriers. The threat of war which in the 1930's was responsible for much of the trend toward autarchism is now at a further remove. On the other hand, the extremely faulty distribution of monetary reserves, the unhappy balance-of-payments position of most of the countries of Western Europe and the unmistakable trend toward government import and export monopolies all operate to reinforce barriers to trade.

Postwar commercial policy will, in all probability, reflect the influence of Great Britain and her empire. If Britain can find the means to finance her inevitable import balance for the next few years, fund her blocked balances and, in the meantime, restore her export capacities, the resultant liberalizing of commercial policy would be felt far beyond the Empire. If the maintenance of employment in the United States is the key to one major phase of the postwar raw material situation, the commercial policy of Great Britain is the key to the other.

A less important influence, but one particularly affecting the supply situation for minerals, will be the policy of the United States and Great Britain regarding the disposal of surplus war stocks. If these are largely impounded in stockpiles, strategic or other, the early postwar demand for a number of minerals and for some agricultural raw materials will be much improved.

Over the longer run, the raw material outlook will depend upon the rate of industrialization in certain economically undeveloped areas of the world and upon the speed with which industrial production can be restored in Europe and the Far East. Most of the Latin American countries, India and China have extensive industrialization plans, and their dollar holdings at the end of the war will permit a substantial beginning. From then on, however, foreign capital will be needed, and the availability of funds from newly created international lending institutions and from private and public sources in the United States will pretty much set the pace for development

in these areas Industrialization, moreover, is a slow process. The rate of industrial expansion would have to be extraordinarily rapid to keep pace with other potential expansion, at least in agricultural raw materials.[1]

Granted that the general conditions and policies outlined above will profoundly affect the postwar raw material outlook, there is reason to believe that even were the most optimistic expectations realized, we should still find a number of raw materials produced in substantial and chronic surplus. In discussing the prospects for particular materials it will be useful to group them as foodstuffs, agriculturally produced industrial materials, and minerals. The causes of anticipated surpluses in the three groups will be found to differ substantially.

B FOODSTUFFS

In the United States and in the world, the terms of trade (the quantity of manufactured products that can be purchased from the sale of a given quantity of agricultural products) have, from 1920 to the recent war, run persistently against agricultural products. There is every indication that in the next year or two these long-run forces will again begin to operate against the prices of agricultural products.[2] Underlying the trend in foodstuffs are three principal causes: the decline in the rate of increase of industrial employment, the well-attested fact that as incomes increase a smaller percentage is spent on foods, and a technological revolution in agricultural production that has by no means spent its force.

[1] On the prospective influence of industrial expansion on the terms of trade of primary products, Colin Clark raises a dissenting voice. *Cf.* his *Economics of 1960*, Macmillan & Company, Ltd , London, 1942, p 289 It is his prediction that the period 1945 to 1960 will exhibit the following phenomena.

(1) large international capital movements, (2) full employment, (3) great expansion of the volume of world trade, (4) outflow of labor from primary into secondary and tertiary industries at a higher rate than before; (5) improvement of the terms of trade in favour of primary production.

[2] The argument of the next two pages draws heavily on Schultz, *op cit.*, particularly Chaps 3, 4 and 5.

In a scientific and technical environment, the greater productivity of economic resources through mechanization is not limited to industry. The increase in agricultural output over the last few decades, in the United States and elsewhere, has been accompanied by a continued decline in the farm population responsible for this increase. The war experience in this country and Great Britain has shown how great, under favorable circumstances, the agricultural output per man can be. With a decline in the American farm population of about five million, agricultural output increased by more than 25 per cent.

Full realization of the potential productivity of agricultural resources depends on an adequate demand for agricultural products. The demand for foodstuffs is determined generally by the size of the population and by per capita income. In contrast to most manufactured products, however, consumption of many staple foodstuffs does not increase rapidly with increased income, in technical language, the income elasticity of demand is low. This being true, productivity per man in agriculture can attain its potential rate of increase only if industrial production and employment are sufficiently expanded to provide jobs for that part of the farm population that should be displaced by technical improvements in agricultural production.[1] For more than a decade preceding the war, however, the rate of industrial expansion was not nearly rapid enough to draw off the farms the numbers that should leave The result has been a surplus population in agriculture and a physical output per man far below the potential. Overproduction of farm products and consequent low prices have tended to produce a value output per man that falls even further below what is possible and desirable.

This is the nub of the persistent farm problem in the United States and elsewhere. Here, however, we are concerned not

[1] It is Schultz's view that agriculture can be fairly prosperous in the United States in the first two decades after the war only if the "rate of increase in non-agricultural output reaches 4 to 6 per cent per year." *Op cit*, p 126

with the farm situation as a whole but with its effects on the output and prices of some important internationally traded foodstuffs. Short of an unexpectedly rapid rate of industrial expansion, postwar international trade will be confronted with the same persistent surpluses of wheat, sugar and coffee, and perhaps by the recurrent surpluses of rice, cocoa and tea that marked the prewar period. The great expansion in the output of fats and oils during the war is likely to create a surplus of these agricultural products as well.

Wheat. A chronic surplus of wheat has plagued the world for nearly twenty years. Since 1926 our production has tended to run ahead of consumption, with a constant increase in carry-over stocks broken only by the crop failure caused by the droughts of 1934–1936. The collapse of wheat prices during the depression led to an intensification of national price-supporting measures in most of the important wheat-producing countries of the world and was responsible for the conclusion of the unsuccessful International Wheat Agreement of 1933.

The four chief wheat exporters of the world are Canada, Argentina, Australia and the United States. The table below presents for selected periods the data on average yield, production, exports and carry-over of wheat for these four countries.

The carry-over into the 1944–1945 season was reduced to

	1909–1913	*1922–1926*	*1938–1939*	*1942–1943*
Acreage sown, million acres	86	112	141	100
Yield, bushels per acre	13	15	13	19
Production, million bushels	1,116	,526	1,815	1,929
Net exports, million bushels	345	691	479	345
Carry-over stocks million bushels	Not available	249	634	1,694

1,200 million bushels by the heavy utilization in the United States of wheat for feed and for industrial purposes. Wheat shipments for European relief will, until the 1946 harvest, be limited only by transportation capacity in the United States and by the capacity of such ocean shipping as is available. An additional demand, created by extensive crop failures in 1945 throughout the Mediterranean basin and parts of the Balkans, has made further heavy inroads on the 1945–1946 carry-over. Thus, earlier predictions of high surplus stocks of wheat at this time not only have not materialized but the world may be faced with a serious deficiency for several years.

Whether surpluses of wheat will again accumulate, after these immediate and unusual demands have been met, will depend primarily on government policies of the principal wheat-producing countries. Although the demand for wheat as a source of food is inelastic both to a decrease in price and to an increase in income, the consumption of wheat can be greatly increased in countries in which wheat is a staple food grain by allowing prices to decline sufficiently to stimulate its continuing use as an animal feed. At lower prices, moreover, wheat might also be substituted for other food grains in areas in which it has not hitherto been an important element in the human diet. Prices low enough to produce a steady increase in wheat consumption imply an abandonment of government price support as a means of supporting farm income. If this reversal of policy can be brought about, there is little reason to fear a continual surplus of wheat. A perpetuation, however, of the price-supporting policies of the 1930's in the principal wheat-producing countries of the world will make a continuation of the surplus inevitable.

Sugar. Although the United States is, on balance, a large importer of sugar, our island possessions, Cuba, and the Philippines are large exporters. We have a strong producer as well as consumer interest in the postwar sugar situation.

During the war, partly because of the very large industrial consumption of sugar, production within the Allied supply

area has not been able to keep pace with requirements. Stocks have declined and are now at a low ebb. The requirements of Western Europe and an inevitable delay in the reappearance of exports from Southeast Asia will keep sugar scarce for at least two years.

The likelihood is, however, that the prewar world sugar surplus will reappear as soon as European beet sugar returns to full production and Far Eastern sugars re-enter world trade. Although the Brussels Sugar Convention of 1902—an early international commodity agreement to control surplus sugar production—reduced trade barriers and curtailed high-cost beet sugar production, sugar stocks accumulated and prices fell before the First World War. That war witnessed an enormous expansion in sugar production in the West Indies under the impetus of fantastically high prices. After the war, American tariff policy encouraged production in Cuba, Puerto Rico, Hawaii and the Philippines. By preferential tariff and direct subsidy, sugar production was also stimulated in the British Empire. European beet sugar production was quickly restored under tariff protection that reached higher than prewar levels. The development of improved strains permitted exceedingly low-cost sugar production to expand in the East Indies.

The necessary adjustment of sugar output to sugar consumption has always been, and will continue to be, handicapped by national security policies favoring domestic production and by the overexpansion of cane production in undeveloped areas that offer no effective alternative employment for local resources.

Rice.[1] Apart from wheat, rice is the only unprocessed foodstuff of which the United States is a substantial exporter. Before the war surpluses of rice were sporadic and local rather than persistent and general. The United States, which pro-

[1] *Cf* V D Wickizer, *Rice in the Western Hemisphere, Wartime Developments and Postwar Problems* (Food Research Institute), Stanford University Press, Stanford University, Calif, 1945

duced an average of about 50 million bushels a year and consumed about 40 million, was experiencing difficulties in exporting its surplus output. Prices were supported domestically by purchases of the Federal Surplus Commodities Corporation. Consequently stocks in this country were high at the outbreak of war. The loss of Far Eastern sources, however, made rice an extremely scarce article in United Nations territory. Under the incentive of high wartime prices, output in the United States increased to around 70 million bushels and was expanded wherever growing conditions were propitious, in the Western Hemisphere as well as in India and Egypt. Most of this war-induced output—and certainly that of the United States—will not be able to meet the competition of low-cost Asiatic rice when it againbe comes available in prewar quantities. An attempt to continue rice production in the Western Hemisphere may well make persistent and general a surplus that was local and intermittent before the war.

Fats and Oils[1] The loss of Far Eastern sources of fats and oils led, during the war, to a great expansion of output in the United States and, to a lesser extent, in Latin America. Phenomenal increases in the production of soybeans, flaxseed, peanuts and lard were mainly responsible for changing this country's position from that of a prewar importer of about 2 billion pounds per annum to that of a net exporter of 1.5 billion pounds by 1944. On the continent of Europe, behind the blockade, increased production of oilseeds went far toward replacing the 4 billion pounds of fats and oils formerly imported from Asia, Africa and South America.[2]

As with other foodstuffs, the present situation is one of shortage. However, when 3 billion pounds of fats and oils be-

[1] This group of products is made up of the yield of a large number of oilseeds, nuts and animal fats. The more important part of these are edible fats and oils. The principal industrial use of inedible oils is for soapmaking and for paints, varnishes and lacquers.

[2] *Cf.* Karl Brandt, *Fats and Oils in the War* (War-Peace Pamphlets, No. 2) (Food Research Institute), Stanford University Press, Stanford University, Calif., 1942, pp. 18–26.

gin to flow again from the Far East, and when the whaling industry resumes its prewar annual output of approximately 1 billion pounds, the shortage in supply will rapidly disappear.

Although wartime expansion will perhaps leave fats and oils in surplus, a continuation of the per capita increase in consumption may make this surplus short-lived. The heavier proportion of total calories in the human diet represented by fats constitutes one of the most important recent shifts in diet The industrial use of fats and oils, principally in soapmaking and in paints and varnishes, is likely also to continue at a fairly high level so long as increased incomes are generally maintained.

Coffee. The most spectacular prewar agricultural surplus was undoubtedly coffee. During the 1930's Brazil, in an attempt to balance production and consumption, destroyed nearly 71 million bags of low-grade coffee, the equivalent of nearly three years' total world consumption.

The loss of the European market, normally accounting for about 10 million bags a year, might have been expected to lead to a tremendous accumulation of stocks during the war. Actually, a number of factors prevented a critical surplus from developing in this hemisphere: the additional destruction of 7 million bags of Brazilian coffee between the beginning of 1941 and the end of 1944; the extraordinarily low yields of Brazilian coffee from the crop year 1942–1943 through the crop year 1944–1945 and a falling off in coffee production outside Latin America; and finally, an extremely high rate of consumption in the United States. As a matter of fact, although exact totals are lacking, the carry-over of Brazilian coffee appears currently to be less than for the crop year immediately before the war. Against this, however, has to be set a wartime accumulation in other coffee-producing countries of unreported stocks that may total several million bags.

Before the war the coffee surplus was pretty much limited to Brazil, and in all probability it will continue to be most acute there. Coffee production in Latin America outside Brazil

has increased steadily as consumer taste has come to favor the milder Central American blends, and coffee production outside Latin America will, in all probability, recover its position in world markets. How much of a surplus can then be anticipated will depend primarily on how successfully Brazil can divert agricultural resources away from coffee and into other production.

Tea and Cocoa. In tea and cocoa, as in coffee, America has a strictly consumer interest. But whereas we account for less than 10 per cent of world tea consumption, we account normally for nearly 50 per cent of total coffee consumption and nearly 40 per cent of world cocoa consumption

Before the war, 80 per cent of the world's tea production was under control of the International Tea Committee, which set export quotas, limited planting and prohibited the export of tea seeds and slips.[1] Meanwhile, tea production in areas outside the agreement, notably China, Japan, Portuguese East Africa and French Indo-China, was rapidly increasing. In the absence of control, this widespread production would almost certainly drive tea prices to very low levels.

Although cocoa was in recurrent surplus for 15 years before the war, it seems probable that the future will see production and consumption more evenly balanced. During the war the West African plantations, which supply two-thirds of the normal world export of cocoa, have been neglected, and restoration of full production in this area will require five or six years. However, production in Latin America, which provides the rest of the world's supply, has been well maintained. The United States may presently be faced with a British West African export monopoly[2] and, should cocoa again show signs

[1] *Cf.* V. D. Wickizer, *Tea under International Regulation* (Commodity Policy Studies, No. 4) (Food Research Institute), Stanford University Press, Stanford University, Calif., 1944

[2] *Cf* *Report on Cocoa Control in West Africa 1939–43 and Statement on Future Policy*, Report to Parliament by the Secretary of State for the Colonies, Cmd. 6554 *Cf* also a comment by Isaac Witkin, President of the New York Cocoa Exchange, *Journal of Commerce*, Nov. 1, 1944.

of being produced in surplus, an international agreement may be proposed by cocoa producers.

C. INDUSTRIAL RAW MATERIALS PRODUCED BY AGRICULTURE

Foodstuffs constitute about four-fifths of total agricultural output in the United States and in the world, the remaining one-fifth flows into consumption as industrial raw materials. Of these, cotton, wool and rubber are the most important, and all three promise to present serious postwar surplus problems.

The conditions under which these materials are produced correspond in general to those governing other agricultural products; rubber alone is exceptional in that about 50 per cent of crude rubber output comes from plantations typically operated as large units. All three, however, exhibit the same lack of response of production to falling prices that is characteristic of agricultural products. Once expanded, output usually continues to remain high over a long period regardless of economic conditions. Consumption of these materials, however, exhibits a greater cyclical fluctuation than does the consumption of most foodstuffs.[1] Over the long run, moreover, consumption tends to rise with rising incomes, or rather it would, were it not for the increasing availability of synthetic substitutes.

An overshadowing threat to the prospective demand for all three of these materials is, in fact, the emergence in recent years of synthetic fibers and of synthetic rubber. Here lies one of the principal sources of probable postwar surpluses.

Cotton. The world cotton situation from the late 1920's to the beginning of the Second World War was marked by increasing production, less rapidly increasing consumption, and accumulating stocks. During this period, the United States

[1] Since, however, the end products of these materials are in the main non-durable, or semidurable goods—textile fabrics, clothing, tires, etc.—variations in consumption are not extreme

share in world production fell sharply, and our share in world exports more sharply still.

PRODUCTION, EXPORTS AND CARRY-OVER OF RAW COTTON
(million bales)

		1925–1929 Average	*1934–1938 Average*
Production	Total world	26.8	30.0
	United States	15.0	12.7
	Foreign	11.8	17.3
Exports	Total world	14.4	12.6
	United States	8.8	5.3
	Foreign	5.6	7.3
Carry-over:	Total world	10.4	16.5
	United States	5.3	9.3
	Foreign	5.1	7.2

The highest prewar carry-over of 22.7 million bales for the world followed the crop season of 1938, but during the war even this figure was surpassed The carry-over on Aug. 1, 1944, was 25 8 million bales, and the estimated carry-over on Aug. 1, 1945, was 27 million bales The location of this accumulated cotton, however, shifted during the war. The slight increase in stocks held in the United States is accounted for by the extraordinarily high wartime mill consumption in this country and by continued limitations on output. Elsewhere in the world stocks rose from about 9.5 million bales in 1940 to more than 14 million bales in 1944, with the largest increase traceable to Latin America.

These very high stocks of cotton will be facing rather drastically reduced import requirements. For many years before the war, world exports and imports were remarkably stable at around 13 million bales per annum. Unless and until mill consumption is restored in Europe and Japan, it is difficult to see where a demand will develop for a postwar export of more than 9 million bales, and restoration of European and Japanese cotton consumption to anything like the prewar

figures seems extremely remote at this time. During the war rayon took the place of cotton for so many uses that it is doubtful whether cotton ever can or will regain its prewar position. Furthermore, the long-run geographical trend of cotton textile production is toward the raw-cotton-producing countries. This shift will tend permanently to reduce the need for cotton exports and imports.

Furthermore, in the absence of effective controls, the post-war cotton surplus may be further aggravated by a chronic overproduction of cotton. The decline in American output has been more than offset by increases elsewhere, principally in Brazil, China, Russia, India and Egypt. Expansion of acreage has also been accompanied by technological improvements in production, both here and abroad. Improved varieties, increased use of fertilizer and, in this country, methods of soil conservation have all increased the yield per acre. The United States appears, in fact, to be on the verge of an extensive mechanization both of the cultivation and harvesting of cotton. Since machine operation will substantially lower costs, we may expect, unless restrictions are imposed, an inevitable increase in the acreage devoted to cotton

Given favorable economic conditions, an absence of synthetic substitutes, and moderate prices for cotton, it is possible, though improbable, that increased consumption could keep pace with unregulated production What is certain, however, is that synthetic fibers will continue to supply an ever greater part of textile requirements, and it is highly probable that governmental price supports for cotton will be maintained long after the war.

From a cotton equivalent of 2.5 million bales in 1935,[1] world rayon production increased to an equivalent of more than 5 million bales in 1939, of more than 8 million bales in 1942, and the end is not in sight. Other synthetic fibers will

[1] On the assumption that 425 pounds of rayon equals 500 pounds of cotton gross weight

enter the postwar market in volume too, assisted, no doubt, as rayon is, by governmental policies that are effectively pricing cotton out of the market. It is only fair to point out, however, that even in the absence of any restriction the resources that would be turned over to cotton are enough to glut the market with an output that would bring prices very low indeed. This tendency to overproduction, plus the size of the present carry-over, adds up to a surplus problem of serious dimensions

Wool. Although synthetic fibers cannot be so directly substituted for wool as for cotton, it follows from the very nature of textile competition that the expansion of synthetic consumption will also undoubtedly reduce the consumption of apparel wools. The production of wool, however, is not subject to that chronic overinvestment of resources that characterizes cotton.

The surplus that faces wool producers is almost entirely the result of the war. The European markets that used to absorb more than 1 billion pounds annually have been cut off for five years, and Japan, which absorbed roughly 0 25 billion pounds, has been shut off for three years[1]. In the meantime, wool production, encouraged by high prices, has expanded in all the principal producing countries. In Australia, New Zealand, South Africa, Argentina and Uruguay, the five leading export nations, output increased during the war by about 12.5 per cent.[2] Consequently, despite a very high rate of consumption in Great Britain and the United States, stocks of raw wool increased at the rate of about 500 million pounds a year all during the war period On Oct. 1, 1945, world wool stocks totaled around 4 billion pounds as compared with average prewar stocks of slightly over 500 million pounds.

If and when the support of war-induced price levels is re-

[1] All weights quoted here are on a grease basis. Scoured wool weighs about 56 per cent of wool in the grease

[2] U.S. Tariff Commission, *United States Stockpile Wools* (War Changes In Industry Series, Report No 3), Washington, D C , 1944, p 5 The Australian wool clip, however, was adversely affected by drought in 1944–1945 and may be lower still in 1945–1946.

moved, the production of wool may decline somewhat and, as before the war, remain pretty well balanced by consumption.[1] Even under favorable circumstances, however, it will require a good many years, and wise management, to dispose of the huge war-created surplus without endangering the livelihood of wool growers.

Rubber. As has been noted earlier, the postwar prospects for rubber depend primarily on what is done with synthetic capacity in the United States.[2] If no more than 200,000 to 400,000 tons of synthetic is held in production, there should be no critical surplus of rubber even after production in the Far East is completely restored and the restocking period is over. If the United States, on the other hand, seeks to maintain synthetic production at anything like its total capacity, a serious rubber surplus is unavoidable.

The rubber problem prewar was not so much one of an inadequate price level as of highly variable prices; for this variability, the vagaries of rubber control were in part responsible. The trend of rubber consumption was strongly upward, and demand may be expected to increase rapidly with an increase in incomes. Favorable postwar economic conditions should insure a high volume of consumption and, given sensible policies with respect to synthetic capacity, an increased demand should prevent the emergence of a rubber surplus of any extensive proportions.

1 In the United States the ceiling price for wool, maintained by purchases of the Commodity Credit Corporation, exceeds the import price plus the 34 cents per pound (scoured basis) duty. Consequently, mills are meeting their requirements from import wools and practically the whole of the domestic clip is moving into government stocks CCC purchases are scheduled to continue through June, 1946 *Cf* W L. Clayton, "Effect of the Wool Market on Foreign Economic Relations," *U S. Department of State Bulletin,* Vol XIII, No. 335 (Nov 25, 1945).

2 An extensive discussion of the prewar and war development in rubber is contained in the U S. Tariff Commission, *Rubber* (War Changes In Industry Series, Report No. 6), Washington, D.C, 1944 *Cf* also K E. Knorr, *World Rubber and its Regulation* (Commodity Policy Series, No 6) (Food Research Institute), Stanford University Press, Stanford University, Calif., 1945.

D. MINERAL RAW MATERIALS

Mineral raw materials are characterized by supply and demand conditions that differ widely from those governing the production and disposal of agricultural crops. Since these materials are customarily fabricated into products of great durability, demand fluctuates violently with the cycle. On the other hand, the consumption trend for most of the important mineral products, and particularly for light metals, is strongly upward. Since the income elasticity of demand for these products tends to be high, the postwar prospects for most minerals will very largely reflect general economic conditions. Although the production of minerals is not subject to the weather hazards that beset agriculture, unforeseeable discoveries of new deposits and the exhaustion of old bring hazards of their own. Differences in production costs among different deposits may be no greater than geographical cost differences in agriculture; but because accurate cost calculation is more nearly possible and plays a larger role in mining than in agriculture, the extractive industries inevitably include a segment of high-cost producers and high-cost areas that come into and go out of production as prices change.

The concentration of control in most mining and metal industries also facilitates swifter adjustment of production to variations in demand. In 1932, for example, world copper production was cut to 20 per cent of capacity. Similarly, as the experience of the war years testifies, output expands rapidly with increasing demand.

In the last few decades, scrap metal has supplied an increasing proportion of total requirements and in the postwar period the scrap yield for most metals will be extraordinarily high. There is, however, a considerable variation among the metal industries in the utility of scrap as a substitute for virgin metal. Copper scrap, for example, is about as usable as the newly mined material; magnesium scrap, on the other hand, suffers a 40 per cent loss in recovery. The markets for almost all metal products, however, will be overshadowed for some time by

existing stocks and the prospect of large-scale recovery of scrap. Governmental surplus-material-disposal policies can help considerably toward stabilizing these markets and sustaining production by impounding the bulk of government-owned stocks in strategic stockpiles. Prospective postwar surpluses will then be far less likely to develop. The existence of war-produced stocks in different countries may necessitate intergovernmental consultation and cooperation with respect to a number of metals.

Copper. During the war, annual world production of refined copper was running at around 3 million tons, as compared with prewar production, in favorable years, of slightly more than 2 million tons.[1] This greater volume has been possible only through the continued operation of high-cost properties both here and abroad. At the war's end, U.S. stocks of virgin copper, in government and industry hands, were somewhat in excess of 800,000 tons The yield of new scrap in munitions production is unusually high, and in the United States during the war years recovery ran at the rate of about 500,000 tons a year. The total output of virgin copper plus new scrap—1,300,000 tons—is nearly twice the annual consumption of copper in this country under favorable conditions. In addition, one consequence of the very high consumption of copper during the war will probably be an unusually large recovery of the old scrap for some time to come.

Although world copper consumption under prosperous postwar economic conditions may well be considerably over 2 million tons a year, and though strategic stockpiles may absorb a few hundred thousand tons, it appears inevitable

[1] Estimated world production in millions of metric tons, *Statistical Yearbook of the League of Nations*, Geneva, 1945, p 161:

Year	*Production, million tons*
1936	1,720
1937	2,335
1938	2,020
1939	2,165

that a sizeable surplus will overhang the market for the next few years.

Whether, after this transitional period, world consumption will justify fairly full operation of war-expanded capacity will depend to a very great extent on prevailing economic conditions. Consumption of copper, in common with that of other metals, is much more responsive to changes in income than the consumption of agricultural products, particularly foodstuffs. The difference between prosperous and only moderately prosperous conditions throughout the world can account for a difference as great as 1 billion tons of annual copper consumption, that is, for one-third of world copper capacity.

Regardless, however, of the rate of consumption, postwar surplus stocks are not likely to overhang the market indefinitely. Copper output declines rapidly with a fall in price—another characteristic in which metals differ sharply from agricultural products—and is readily adjusted to changes in the rate of consumption Of the four great copper-producing areas of the world, the United States, Canada, Rhodesia-Belgian Congo and Chile, the United States has definitely the highest costs. Consequently, low copper prices will probably be accompanied by a greater contraction of output in the United States than in other areas.

After the First World War, American copper producers solved the problem of war-induced surplus stocks by a temporary curtailment of practically all mine operations in the United States and by the creation of a buying and selling pool that functioned until 1923. Cartel operations, in which American companies actively participated, marked the period 1926–1929; and from 1933 to 1937 American producers cooperated with a foreign copper cartel to control prices by limiting exports from the United States. In the absence of a strong governmental anticartel policy, there is a fair probability that similar arrangements may be resorted to in dealing with the existing postwar surplus situation.

Tin. Since 1931 tin has been produced under a tight intergovernmental agreement in accordance with which production quotas are assigned to all the major tin-producing countries of the world.[1] It is not possible to say what the output or price of tin would otherwise have been, but the rapid jump in production to meet stockpile requirements in 1940 and 1941 suggests the extent of normal underutilization of capacity.[2] But, whatever the price might have been, tin consumption would have been very little affected, since the price of tin is an extremely small fraction of the cost of most of the finished articles into which it is fabricated.[3] Although precise data regarding costs are not available, it is known that the Bolivian mines are the high-cost producers and that sources in Malaya and the East Indies could profitably meet total world requirements at prices much lower than those sanctioned by the International Tin Committee.

The present situation is extremely tight, and for a few years following the war consumption of tin will undoubtedly be high. After the restocking period, a tin surplus may develop in the sense that unregulated output could bring prices down too low to cover the high costs of Bolivian producers—but only in that sense. It might be argued, therefore, that in this sur-

[1] For a history of international tin control, written from the producers' point of view, see *International Tin Control and Buffer Stocks,* The Tin Producers' Association, London, 1942.

[2] Tin production, in long tons.

Year	*Production*
1938	163,000
1939	176,000
1940	236,000
1941	245,000

[3] The exceptional volatility of tin prices is, as Yates observes, chiefly due to the smallness of the stocks that are customarily held. "Tin is such an expensive commodity that no *producer* holds more than a few hundred tons; nor do *consumers* worry about holding stocks, since to most of them the price of tin is, as mentioned earlier, immaterial to the price of the articles they manufacture Hence, any quite small change in demand or a rumor of some trifling change in supplies will have an utterly disproportionate influence in price movements." Yates, *op. cit*, p 143

plus problem the United States has no interest; actually, however, the situation is not that simple. We have a security interest in protecting tin sources within our strategic area, and we have a political interest in a stable Bolivian economy Our government-owned Texas City Smelter could be maintained as stand-by capacity, whatever happens to the sources of tin. Our security interests in Bolivian tin and our political interests in Bolivian prosperity might both be guaranteed by acquiring these properties as stand-by capacity and by transferring the tin miners to such other employment as an American-financed developmental program might provide. A program of these dimensions would, no doubt, be expensive.[1] Since, moreover, there is no assurance that the tin agreement would become inoperative without the support of Bolivian producers, we would still continue to import our tin in peacetime at prices determined by the International Tin Committee Positive measures that will assure our tin position in peace and war can probably only be undertaken in cooperation with the principal tin-producing countries of the world.

Nitrates. Of the natural product nitrogen, the only important export source is Chile. Even before the war, however, synthetic nitrogen capacity plus the yield of by-product nitrates was more than adequate to meet world peak demands, so that Chile's position in the international market was maintained only by cartel arrangements limiting European synthetic production. Wartime demands have enormously expanded synthetic capacity in Europe and the United States.

Although the consumption of nitrogen for agricultural and industrial uses should, under favorable economic conditions, be substantially larger after the war than before, it will still be inadequate to absorb the full output of the industry's expanded capacity. Introduction of the new Guggenheim process has reduced the cost of Chilean nitrates to such an extent that, on

[1] Bolivian tin reserves, however, are estimated at not more than 500,000 tons Since the drainage of the mines is good it is thought that they could be held as stand-by capacity without serious deterioration.

a cost basis, Chile may be able to export to the American market in customary prewar volume. If, however, we convert our government-owned plant or any large fraction of its production, the net effect will be seriously to jeopardize the position of Chilean nitrates in this market The European market for natural nitrates will be small or nonexistent, while postwar European excess capacity will be large [1]

Aluminum and Magnesium. No conceivable expansion in consumption can eliminate the vast excess production capacity that already exists for both aluminum and magnesium. In fact, despite continued high requirements, government-owned aluminum and magnesium plants were already closing down before the end of the war The Tariff Commission foresees a maximum domestic consumption of magnesium of 65 million pounds a year in the postwar period, as against a present capacity of 500 million pounds [2] As for aluminum, consumption in the United States might reach 700 million pounds yearly as compared with existing capacity of 2,300 million pounds.

Apart from excess capacity, there will be the difficult problem of disposing of accumulated stocks. On V-J Day the United States government held about 63 million pounds of magnesium, an amount almost equal to estimated maximum postwar annual consumption, industry's stocks were also large.[3] Government-owned stocks of aluminum were about 400 million pounds on V-J Day, and metal stocks within the industry were in the neighborhood of 700 million pounds.[4] Secondary recovery was running at the rate of 650 million pounds annually, and stocks in the hands of scrap dealers were large. Indeed, the inevitably high rate of scrap recovery

[1] The case of nitrogen is discussed at greater length in Chap VII.

[2] U S. Tariff Commission, *Magnesium* (War Changes in Industry Series, Report No 10), Washington, D C, March, 1945

[3] J A Krug, *Production, Wartime Achievements and the Reconversion Outlook,* WPB Document, No 334, October, 1945, p 69.

[4] *Ibid*, p. 66

will constitute a serious obstacle to aluminum producers for at least a few years after the war. The competition of magnesium scrap is much less formidable because a considerable loss is sustained in remelting.

National policy will have to cope with a situation involving the disposal of government-owned plants and surplus stocks of both metals, the transfer of labor resources to other employment and a possible postwar monopoly. With a cessation of subsidized government production, there will probably be no more than two or three postwar producers of ingot aluminum, nor more than two producers of magnesium.

Excess aluminum capacity and surplus stocks will not be limited to the United States Although all the principal combatants expanded their production of both metals during the war, the magnesium potential outside the United States will probably not exceed the demands of domestic consumption plus military stand-by requirements. Before the war, various methods of protecting national aluminum capacity in Europe were supplemented by a tight aluminum cartel, which reserved the domestic market to domestic producers, divided the competitive export market and fixed minimum prices. European magnesium production has been subject to the same tight control by cartel arrangement.

Lead and Zinc. Given reasonably prosperous economic conditions and a relatively free movement in international trade, no serious world surplus is in prospect for either lead or zinc. But should producers in the United States attempt to maintain the high-cost output called for by war requirements, a surplus problem might develop, at least for zinc. Low-cost sources of both lead and zinc are approaching exhaustion in the United States, and our long-run interest clearly demands that we conserve our dwindling supplies by importing a larger proportion of our peacetime requirements. Lead production in this country is not protected by tariff, and in the years before the war the relatively light duties on zinc did not discourage a trend toward greater imports.

Government-held reserve stocks of lead amounted to no more than 70,000 tons on July 1, 1945, and anticipated world requirements to the end of 1946 promise to exceed the available supplies[1] The shortage is expected to result from the loss of certain European supply sources within the Russian security zone and destruction of facilities elsewhere. Even after 1946, lead production may lag behind if consumption is stimulated by favorable economic conditions.

As compared with lead, stocks of slab zinc in the United States are much larger both absolutely and in relation to annual consumption. On Jan 1, 1945, they amounted to about 350,000 tons. Stocks in England are also large, while European zinc requirements for reconstruction can very possibly be satisfied by the very heavy zinc yield from reclaimed military brass scrap. Zinc may therefore be in substantial surplus for the next few years, even with the abandonment of premium prices, and any attempt on the part of the United States to maintain its high-cost output would make such a surplus a certainty.

The increase in the proportion of output supplied by scrap, now a characteristic of most metal industries, is particularly striking in the case of lead. Since it is estimated that, by 1950, 70 per cent of domestic requirements can be met by scrap, production of the virgin metal is likely to become unstable. A 30 per cent decline in consumption might eliminate the market for primary metal altogether.

E. ON THE MEANING OF "SURPLUS"

The word "surplus," as it has been used in the foregoing discussion, requires clarification. The first and simplest use is in connection with stocks. Surplus stocks are those which are larger than the normal carry-over from one crop season to another, or larger than is required for the maintenance of current operations. Both "normal carry-over" and "requirements for

[1] War Production Board, *Post V-J Day Outlook for Lead*, August, 1945

current operations" are terms whose careful definition could justify lengthy discussion, but the stocks with which we are here concerned—mainly war-induced—are too obviously surplus to require discussion. The statement, for example, that stocks of cotton and magnesium will be in surplus in the postwar period hardly needs extended definition.

The word "surplus" has also been applied to a rate of production that persistently exceeds the prevailing rate of consumption. Surplus in this sense is, of course, possible only if output is competitively produced and then is deliberately held off the market. Given the degree of producers' control that exists in most manufacturing and mining industries, output will be adjusted to the rate of consumption and no persistent excess will develop. Under competitive conditions, such an excess can only materialize if the output produced is withheld from the market—as, for example, coffee has been withheld and destroyed and cotton has been withheld by being stored in vast quantities. Any output, within reasonable quantitative limits, *can* be disposed of *at some price* If, however, the market can be cleared only at prices consistently lower than some authority considers desirable, then a failure to adjust price levels downward will result in a continuing excess of production over consumption. Consideration of a "price lower than is desirable" leads us to a third and more fundamental way in which the word "surplus" is here used

An industry's persistent employment of more resources than can, with effective utilization, earn a normal return is the underlying basis for "chronic surplus." In agriculture the principal resource whose return falls short of that awarded the same quantity and quality of service in other employments is labor. Statistics on the relative earnings of the agricultural labor force over the two prewar decades point clearly to an underutilization of labor in agriculture. The most conspicuous indication of a developing surplus in particular manufacturing industries is usually the inadequacy of the return to capital. This may or may not be accompanied by unemploy-

ment, depending on conditions in the rest of the economy and on the mobility of labor out of the industry.

Despite the existence of underutilization of labor in agriculture and the underutilization of capital in manufacturing—both characteristic of a surplus situation—there may, of course, continue to be opportunities for the profitable employment of labor in agriculture and of capital in industry; the term "industry" covers a segment of very varied economic operations. However, should the surplus become chronic and serious, these profitable opportunities will be relatively few If industries were arrayed in the order of their payments (or returns) to similar factors of production, evidence that certain industries remained year after year at the bottom of the scale would indicate the existence of chronic surplus in the sense in which we are now using the term.

The usage of surplus in connection with stocks is technological. It means the quantity in stock over and above that which current practice requires to be held by processors, distributors and consumers. The second use of surplus is political. The amount of surplus production is determined by the difference between a "desirable" price and a price that would clear the market. The judgment of what is desirable is a political judgment and the reasons that underlie it usually have to do with the third usage of surplus—as meaning persistently low relative returns to resources employed in an industry. The returns to half of the resources employed in the whole economy, however, are always relatively low, that is, low relative to the returns of the other half. But even if the returns in particular industries remain consistently at the lower end of the scale, it does not follow that the indicated surplus situation falls within the purview of public policy.

Surpluses become a public concern largely through the activities of organized interest groups. To paraphrase the late Senator Ashurst, when public authorities see a great light it is usually because they feel a great heat. Although the chronic surplus complained of by an interest group may be, and usually

is, accompanied by persistently low returns to employed or invested resources, the correlation between a surplus condition, in a proper economic sense, and public action designed to deal with it is by no means perfect. Postwar policy on raw material surpluses, however, must necessarily deal with political as well as economic realities. This does not mean that the wheel that squeaks the loudest should receive the most oil, but it does mean that the soil in which surplus problems grow and are ripened for public action is heavily fertilized by the activities of political interest groups.

VII. INTERNATIONAL COMMODITY CONSULTATION, BUFFER STOCKS AND QUOTA SCHEMES

COMPETITIVE ADJUSTMENT VERSUS PLANNED EXPANSION

INTERNATIONAL commodity agreements have as their chief goals the management of surpluses and the stabilization of prices. As means to their ends they rely principally on restriction of quantities coming on the market and on storage and disposal plans. Today the word "restriction" has an ugly sound. It conjures up visions of the untimely death of little pigs, the ploughing under of cotton and the burning of coffee. The only kind of output reduction acceptable to the *mores* of free enterprise is that produced by market forces, even though it may entail bankruptcy, forced sale and eviction.

A pleasanter word is "adjustment," which has been given legislative sanction in our Agricultural Adjustment Act. Adjustment conveys the notion of revision up as well as down, and it is true that controlled production of a commodity calls for upward as well as downward adjustments—but usually within narrower limits than free markets would permit. The best international example of adjustments up and down—in this case of both production and exports of a controlled commodity—is to be seen in the operation of the tin agreement. The history of this agreement from early 1931 to the middle of 1942 indicates variations from the basic quotas between a low of 33½ per cent in 1932 and 1933 and a high of 130 per cent of quota in 1940 and 1941. No one could reasonably maintain, however, that output over the whole period would not have been higher under uncontrolled competition than under a scheme of controlled adjustment.

It is necessary to insist upon the essentially restrictive character of quota agreements because their proponents tend to

ascribe to international commodity controls the virtues of economic expansionism. In the promotional literature, phrases commonly used are "maintaining adequate supplies for consumers," "orderly adjustment of production," and "a planned use of resources." If, however, *expansion* of the production of raw materials were needed in the postwar period, it would be quite unnecessary to negotiate international agreements. Uncontrolled raw material production responds to satisfactory prices—or even to unsatisfactory prices—in a way that would obviate any need for such action. In a few cases—principally the international fishing agreements—commodity agreements, by curtailing wasteful cropping practices, have achieved "a planned use of resources" that would otherwise have been exhausted. The conservation objective is in many agreements merely the gilding on a device whose primary function is the curtailment of output This is not to say that international commodity agreements *must* be restrictive, all that can be said is that they have been in the past, and that in the future, so far as we can see, international governmental agreements will not generally be needed to assure the expansion of output of a particular commodity.

The main justification for commodity agreements is that, when properly used, they can effect a desired contraction of exports and output more satisfactorily than can unregulated competition or the uncoordinated efforts of a number of producing countries. International commodity agreements, however, and a good part of national commodity control policy, are phenomena characteristic of a certain stage of economic development. In the nineteenth century, an era of expanding economies and competitive markets, such surpluses as did emerge were both short lived and manageable through ordinary market adjustments. Expansion in different industries was uneven but resources did not remain persistently underemployed in certain sectors of the economy, for more rapid advancement in other sectors required their employment elsewhere. It would be interesting to consider the question of

whether the decline in competition, along with other institutional changes making for increasing friction and monopoly control, is responsible for a decline in the rate of industrial expansion, or whether the line of causation goes in the opposite direction All we need observe here, however, is that the rise of institutional impediments to effective market adjustment has gone hand in hand with a decline in the rate of industrial expansion.

If restrictive commodity agreements were unnecessary for the management of surpluses under nineteenth century capitalism, so also, presumably, would they be unnecessary in an economic system that centrally controlled its rate and direction of expansion. Unforeseen variations in demand or supply might lead to temporary surpluses or deficits, but it is unlikely that they would persist in an economy capable of controlling the volume of production and utilization of resources. The only way to avoid, in normal times, the need for restricting raw material output either nationally or internationally is to maintain a rate of industrial expansion capable of absorbing an increased volume of raw materials and providing employment for such resources as are not needed in their production.[1] To adopt this as a public policy, however, would

[1] The report of the International Labour Office on *Intergovernmental Commodity Control Agreements*, *op. cit*, p XXXVI, grants that "one commodity planning inevitably tends toward restriction by one or more such devices as restrictions on current output or exports, the destruction of supplies, restrictions on new productive capacity, the financing of producers so that they can hold supplies from the market, and the allocation of markets "

The report, however, takes the view that this restriction would be avoided by the constitution of "a general international commodity control organization The broad effect of the introduction of such a general commodity control organization would be to make the schemes for particular commodities tools for the execution of a comprehensive policy framed as a part of a general programme of international economic and social development "

If, however, as the author believes, the principal reason for the persistence of raw material surpluses is an inadequate rate of industrial expansion, such a general commodity organization is not likely to avoid the necessity of continued restriction At best, as will be developed later, it can only prevent or limit certain types of restriction and perhaps shape control schemes in ways that will in-

be to insist on a degree of governmental intervention and intergovernmental cooperation far beyond anything contemplated in most countries today.

Certain of the postwar international institutions, notably the Food and Agriculture Organization and the Bank, look, it is true, in the direction of a planned expansion of consumption and production. Others, including the Fund and the proposed International Trade Organization, may, by reducing barriers to international trade, act to free markets for raw materials. These measures, however, even under condition of economic prosperity, will probably not be enough to prevent the continued overemployment of resources in raw material production. It is possible that in time national policy directed toward fiscal control and international cooperation directed toward the coordination of domestic employment programs may together provide machinery for adjusting raw material consumption to production without recourse to restriction. It seems certain, however, that the time for this kind of mechanism, which would substitute expansion for contraction, has not yet arrived.

Agricultural raw materials will continue to be produced in surplus because neither the mechanism of competitive adjustment nor that of controlled expenditure is available to correct the imbalance. This long-run tendency to overproduction of basic agricultural products has been aggravated by wartime expansion and, for certain commodities, by the development of synthetic substitutes. In the case of minerals, war-induced surplus stocks are impinging on a war-expanded capacity and on prospective high yields from scrap. It is fruitless at this point to look to the competitive market for the removal of these surpluses, and it is premature to expect their removal by a compensatory expansion of output elsewhere in the economy. Nations will have to devise their own programs for disposing of surplus stocks and dealing with overexpanded production

sure that surplus resources will be free to move when expansion elsewhere makes such a movement possible.

and capacity. Unless some sort of international coordination of these programs is effected, there will be an attempt wherever possible to shift the burden of surplus disposal on to other shoulders. A return to the beggar-my-neighbor policies of the 1930's can scarcely be avoided except by a considerable measure of international cooperation.

To point out that neither market adjustment nor planned industrial expansion can be expected to take care of existing or prospective raw material surpluses does not mean, of course, that public policy should not encourage every impetus to economic expansion. In certain areas, the removal of barriers to private trade will provide the stimulus; in others, publicly assisted industrialization programs may lead the way. Commodity programs especially should be designed to facilitate the movement of resources out of overexpanded industries as quickly as expanded employment and investment opportunities elsewhere make such a shift possible. What cannot be overlooked, however, is that war-induced raw material surpluses endanger many industries in which resources have been underutilized for years. Unless the rate of postwar expansion elsewhere in the economy is extraordinarily rapid, no relief for these industries is in sight.

A. THE INTERNATIONAL STUDY GROUP

A word needs to be said here about a preliminary and preparatory stage of international commodity cooperation that is assuming current importance under the innocuous title of international study groups. These groups have already been established for cotton and rubber and will be established for petroleum if the present agreement, now pending, is ratified. It seems probable, moreover, that others will be set up as the need for them arises.

Cotton, Rubber and Petroleum

The purpose of the cotton study group is to prepare an international commodity agreement. At the fourth meeting of

the International Cotton Advisory Committee in Washington in April, 1945, a study group representing six countries—four of the principal producers of cotton and two of the principal consumers—was established to prepare, within three months of its first meeting, a report "to include definite proposals for international collaboration.[1]" The report, when completed, is to be submitted to the International Cotton Advisory Committee, representing ten cotton-producing countries, for such action "as may be deemed appropriate." From the nature of the instructions given the study group, some sort of quota scheme for cotton may be anticipated.

There is no denying, however, that very real problems confront the cotton study group. During the 1930's world cotton production expanded, notably in Brazil, at the expense of American exports. The United States has now, in effect, given notice that not only is it unwilling to retire from the export market but that it expects to regain at least a part of that share of world exports previously lost through its domestic cotton policy. The weapon behind these intentions is an export subsidy that, within the discretion of the Commodity Credit Corporation, may attain any magnitude necessary to move cotton in export channels.[2] In the meantime, prewar average annual

[1] Resolution of the Fourth Meeting of the International Cotton Advisory Committee, Apr 2–14, 1945, at Washington, D C

In preparing its report the Study Group is directed to keep in mind the following considerations·

(1) that effective international management of the cotton surplus would require the collaboration of the governments of countries substantially dependent upon imports as well as of producing and exporting countries; (2) that an effective international arrangement looking toward a reduction in excess supplies would require the regulation of one or more of the following—exports, export prices and production, (3) that the formulation of a plan for international action would take fully into account ways and means of expanding the consumption of cotton.

[2] The Surplus Property Act of 1944 provides that

. . . the Commodity Credit Corporation may dispose of or cause to be disposed of for cash or its equivalent in goods—or for adequately secured credit—for export only, and at competitive world prices, any farm commodity or product . . .

world exports of around 13 million bales have shrunk to an estimated prospective export of 8 or 9 million bales with no certainty that mill capacity, shifted to rayon production during the war, will return to cotton. Meanwhile, roughly 20 million bales over and above normal carry-over are immediately available for export. Yet cotton-exporting countries are unwilling to accept any drastic decline in present export prices.

If excessive cotton stocks are to be reduced to manageable proportions by sales in a world market that shows signs of being permanently contracted, then quotas for new cotton allocated to the principal exporting countries will have to be kept small for a number of years. But in order to restrict exports without piling up a continual increase in the carry-over, it will be necessary to impose controls on production as well. How seriously this will affect cotton producers in the various countries that participate in an agreement will depend in part on the bargaining strength of the respective countries.

In a cotton agreement, as in any international commodity negotiation, the bargaining position of the prospective participants is very uneven. Surplus stocks and excess production exist mainly in short- and medium-staple lengths, that is, in American upland cotton and directly competing grades. At prewar price differentials, long-staple cottons were not in any great surplus, but since, within limits, staple lengths are interchangeable a break in price differentials could bring about a surplus.

Cotton-producing countries are unequally dependent on exports and have very different capacities for financing surpluses and for disposing of them. Cotton-producing costs also show great variation between countries. The United States' need for a world cotton agreement is more pressing, probably, than that of any other country. For not only are our surplus stocks large but they are of grades and lengths in which there is a large world surplus; our average costs—at the farm income levels we are willing to tolerate—are high, and our customary reliance on export for the disposal of cotton is

great. These circumstances render our negotiating position weak, were it not for the financial strength that permits us to sell cotton abroad indefinitely at a loss. This financial strength, placed behind the mechanism of export subsidies, has been sufficient to persuade other cotton-producing countries that an international agreement is inevitable. It will no doubt be a potent bargaining weapon in quota negotiations.

It should be clear by now that a study group is not exclusively concerned with such subjects as the statistics of world production, consumption and stocks. Also included in the curriculum are the possibilities for unilateral action by various countries in the absence of agreement. In fact a study of the alternatives is the subject most likely to lead to a conviction that only a cooperative solution is possible for seemingly insoluble problems.

Since 1944 the United States has also participated, along with Great Britain and the Netherlands East Indies, in the International Rubber Advisory Committee. This group has no restrictive purposes; its functions are limited to a study of world rubber problems and to the working out, on a multilateral basis, of possible solutions. The American representatives on the committee are assisted by a Rubber Advisory Panel representing both producing and processing industries. At a minimum, this committee is likely to impress upon the participating countries the probable consequences of proposed national rubber policies on the international rubber trade. In formulating its postwar rubber policy the United States in particular should take into account all possible repercussions and the interests it may affect. Beyond this minimum, however, the International Rubber Advisory Committee will probably perform a more positive function looking to an international solution of world rubber problems.

Should the proposed bilateral petroleum agreement, now under discussion by representatives of the United States and Great Britain, be ratified by both countries, it would call for the formation of a third study group, under title of the Inter-

discussion will precede any unilateral action. An International Petroleum Commission would appear to be the proper forum for much of this discussion, and its continuance as a permanent body may well smooth the way to a multilateral determination of oil policy

The petroleum industry is not confronted with a persistent surplus of the kind that plagues so many raw material industries. Therefore an international agreement need not look toward an over-all limitation of output and the imposition of export quotas. The principal issues facing the United States and other oil-producing countries revolve around access to oil resources, access to markets and the protection of foreign investments. The United States has, besides, a particular interest in the development of oil production in other areas to supplement our own diminishing reserves. An international oil agreement might, in the course of time, become an instrument for the regulation of production and marketing methods. Short of that, however, there are a number of areas of conflict on which an accord might be reached by an international organization representing the principal oil-producing and consuming countries of the world.

The study group for rubber and the proposed Petroleum Commission have not, like the cotton group, been assigned the definite task of formulating an international commodity agreement of the familiar restrictive type. The situations that face these industries are not so easy to diagnose, and such remedies as may lie in international action are fraught with more hazardous possibilities than have challenged the negotiators of earlier international commodity agreements. The study group may provide a preliminary step to multilateral action, or it may merely advise in the formulation of national policies that take into account some of the extranational interests involved. Among the commodities rightfully requiring concerted study, nitrogen deserves special mention.

The Case of Nitrates

As we noted in Chap. II, Europe's excess synthetic capacity had led, before the war, to the formation of a tight nitrogen cartel that held certain facilities out of production and divided world markets with the Chilean Sales Corporation, almost the sole exporter of natural nitrates. During the war, synthetic capacity was greatly increased both in Allied territory and within the German zone of occupation. European nitrogen facilities are now mainly idle for lack of coal, and the European shortage of nitrates is acute. This shortage may last, as we have said, well into 1946. As soon, however, as deferred demand has been satisfied, European synthetic-nitrogen capacity will come to be in very great surplus.

Before the war about 50 per cent of Chilean nitrate exports came to the United States, and most of the remainder went, apparently by cartel agreement, to areas other than Europe. The extension of the low-cost Guggenheim process to practically the whole of Chilean output will permit Chilean exports to sell at a still lower price, but even then natural nitrates can barely compete with the synthetic product in the American or European markets. For years the Chilean government has attempted, without success, to persuade other countries to refrain from constructing or developing synthetic capacity. At the Rio Conference in 1942 the United States agreed to avoid "in so far as possible the expansion of production of substitute or synthetic commodities which is economically artificial," except for the purpose of national defense. Since the synthetic product is not "economically artificial," but fully competitive with the natural product, this agreement constitutes no real check on synthetic production.

During the war privately owned nitrogen capacity (in the form of anhydrous ammonia plants) increased in the United States from slightly over 400,000 to about 760,000 tons. War-constructed ordnance plants have an additional capacity of nearly 600,000 tons. Including all by-product production, the

United States has a present capacity of between 1,300,000 and 1,400,000 tons of nitrogen per annum. Our prewar consumption in good years averaged around 700,000 tons; in 1941, consumption rose to 781,000 tons, of which 70,000 went into explosives. United States fertilizer nitrogen consumption, which had averaged 410,000 short tons in the five years 1937–1941, mounted to 631,000 tons in 1943. Under moderately favorable conditions the Department of Agriculture estimates postwar consumption at 750,000 tons.

It is against this background that former Secretary of Agriculture Wickard recommended to Congress the conversion of

> . . . government plants with a rated capacity of 300,000 tons for the production of nitrogen fertilizers and ammonia derivatives as soon as war conditions will permit. These plants should be sold or leased to private industry, including farmer cooperatives, under arrangements which the Department of Agriculture finds will insure the use of the plants for the benefit of farmers in the public interest. Otherwise, the plants should be operated as a public enterprise [1]

If this course were followed, the United States, on the basis of the above estimates, would be independent of nitrogen imports under favorable economic conditions and under less favorable conditions might have a surplus for export. It is clearly our prerogative to safeguard our own nitrogen position without consulting other countries, but by so doing we shall also clearly affect the interests of other countries. Furthermore, certain of these interests and the action taken by other countries to protect them will concern us. Among other aspects of the world nitrogen situation, we have reason to be interested in the degree of international competition in the industry, possible programs for the scaling down of excess capacity by intergovernmental action, and the effect on Chile of the probable loss of her principal markets.

[1] Testimony on H.R 5125, House of Representatives Committee on Expenditures in the Executive Departments, Aug 9, 1944 *Cf* Also U S Department of Agriculture, *A National Policy for Fertilizers and Liming Materials*, Washing, D C , February, 1945.

Two companies, du Pont and Allied Chemicals, produce about 90 per cent of the private output of anhydrous ammonia in the United States and during the war operated about 50 per cent of government-owned capacity. Establishment of effective competition must therefore be achieved through the transfer of government plants to independent producers. This will not be easy, since the plants to be disposed of are large and costly, and the competitive power of the two dominant producers is great. The disposition of United States government plants may ultimately affect the state of international competition, since the two leading private producers have cartel connections, du Pont through its patents and processes agreements with Imperial Chemicals, and Allied Chemicals through the substantial bloc of its stock held by Solvay, the Belgian member of the prewar nitrogen cartel.

If the cartel policy outlined in Part I of this report were achieved by international agreement, and if government nitrogen plants were made a means for reactivating domestic competition, intergovernmental consultation to this end would not be needed. If these objectives—international and national —are not achieved, then the dearth of international competition in nitrogen may well be a proper subject for an exchange of views among governments.

It was suggested in Part I that a rational scaling-down of excess nitrogen capacity by intergovernmental agreement might forestall pressure for cartelization. Since any such program would hinge on what was done with government-owned nitrogen capacity in the United States, this government's participation is essential to any full discussion of the reduction of excess capacity.

Finally, the United States has both a security and an economic interest in the soundness and solvency of the Chilean as well as of other American economies. It seems quite possible that Chile may lose a substantial part of her nitrates market and along with it an important source of foreign exchange and government revenue. In that case it might

be to our interest to assist Chile to develop alternative sources of employment, of foreign exchange and government revenue.

There are, no doubt, other aspects of the world nitrogen situation that would repay intergovernmental study and consultation. Among them might be considered, perhaps in co-operation with the Food and Agriculture Organization, ways of increasing the use of nitrate fertilizers. Nitrogen has been selected for particular comment, but there are other raw materials of which war-induced surplus stocks and increased productive capacity have created problems that demand attention. Whether an international commodity policy is required, or merely intergovernmental consultation on the implications of national policies, the international study group may prove to be a useful means for arriving at solutions compatible with satisfactory trade relations.

B THE ROLE OF BUFFER STOCKS[1]

The use of buffer stocks as a device for offsetting price fluctuations in a particular commodity has a history that is shortly told and not very illuminating.

The tin agreement is the only one to date that has provided for an internationally held buffer stock, and its influence on

[1] The following discussion, because of space limitations, has had to neglect a number of the very real operating difficulties confronting buffer-stock management that can be effectively presented only by an examination of the characteristics of particular commodity markets We speak of commodities in this section as though they were homogeneous A moment's reflection on the number of grades and staple lengths of cotton in the United States and in other cotton-producing countries reveals how much more complicated the management of a buffer stock of cotton would be likely to be than if cotton were really a homogeneous product Brazilian coffees have been the only types in substantial surplus Yet if a buffer stock were limited to Brazilian coffees the effect on the price of other types and blends would seriously complicate the management of the problem The different locations of surplus stocks in relation to markets, the presence or absence of storage facilities, the inadequacy in certain areas of statistical data and of crop forecasting techniques, and the problems involved in sharing the financial cost add up to a formidable set of practical difficulties confronting any international buffer-stock scheme

price movements has been all but invisible. The stock was extremely small in relation to variations in the rate of tin consumption; the fact of its existence led to a reduction of current holdings on the part of both producers and users; and the Tin Committee appears to have considered a buffer stock a partial substitute for a conservative management of quotas.[1] Although this single instance is hardly conclusive proof that buffer stocks cannot assure price stabilization, it has led the most recent historian of the tin agreement to the somewhat pessimistic conclusion that

> . . . as long as both functions, price boosting and price stabilizing, are entrusted to the same institution and the same controllers, who are representatives of producer's interests, so long even the best of machinery and institutional devices will not guarantee success in preventing undue price fluctuations.[2]

Both the Draft Wheat Convention and the sugar agreement provide that the participating countries of export shall maintain stocks sufficient to meet any foreseeable harvest variation, but neither establishes an internationally held buffer stock designed to protect prices against unforeseen variations in demand. In fact, except for tin, practically the only experience to date with international buffer stocks, whether held by private or governmental agreement, has been the attempt to pool surplus stocks for purposes of orderly clearance. The Chadbourne plan provided for the gradual disposal of sugar stocks over a period of five years, with a simultaneous restriction on exports and production. Since the agreement was reached in the midst of extreme depression, in 1931, the end of the five-year period found sugar prices lower than they had been at the beginning. The first tin pool, organized in 1921, was similarly intended to arrest a price decline by holding supplies off the market. After the First World War, surplus copper

[1] *Cf* K E Knorr, *Tin Under Control* (Commodity Policy Study, No 5) (Food Research Institute), Stanford University Press, Stanford University, Calif, 1945, pp 207–213

[2] *Ibid*, p 212.

stocks were pooled by international agreement among copper-producing interests. One of the most interesting and important surplus-stocks-disposal plans is embodied in the current agreement between the United Kingdom and the dominions of Australia, South Africa and New Zealand for the marketing over a period of 13 years of more than 3 billion pounds of wool accumulated by the United Kingdom during the war.[1]

The national experience with storage plans has been more extensive, but it does not throw much light on whether, and to what extent, buffer-stock operations may be expected to cushion price variations. A number of governments have undertaken the purchase and storage of wheat in order to support prices by holding surplus stocks until prices rose. For various reasons, but mainly because of an inability to estimate the magnitude and duration of the price decline and to resist the pressure of interested producers, administrators of storage plans have found the disposition of stocks extremely difficult If buffer stocks are to counteract demand fluctuations, they must permit of a two-way movement. Without, however, the aid of war or other catastrophe to absorb accumulated stocks, national storage plans have tended to store much and to disburse little

There is, however, reason to believe that attempts to even out demand fluctuations by purchase for and sale from stocks may prove more successful in the future. To begin with, it is unlikely that we shall soon see a recurrence of the decline in consumption and prices comparable to that of the 1930's. Moreover, experience with buffer-stock and storage operations has demonstrated the size of stocks that must be held if fluctuations in demand are to be offset. The 8,000 tons of the second tin pool and the 15,000 tons of the third tin pool were quite inadequate to safeguard tin prices. A buffer stock of 50,000 tons, however, about one-third of annual consumption, would safely cushion demand changes of prewar magni-

[1] *Cf. Board of Trade Journal*, Sept 8, 1945, pp 421–423.

tude. For commodities that undergo great variations in supply, such as coffee, or in demand, such as most metals, buffer stocks of a size approaching average annual consumption may be necessary to an effective stabilization of prices

Whatever the prospects for buffer-stock operations in general, it is obvious that the holding of surplus stocks for orderly disposal, which is one type of buffer, is going to be necessary for a number of commodities The British Empire scheme for the marketing of wool stocks has already been announced and other plans will doubtless follow. If these very large war-induced stocks are to be disposed of without demoralizing the market, the policies to be followed will have to be publicly announced and strictly adhered to. Apprehension regarding the policy or changes in policy of the disposal authority would tend to produce the speculative price fluctuations that the authority was set up to prevent

The current experience of the U.S Commodity Credit Corporation in disposing of cotton stocks at announced prices is instructive. Since Nov 15, 1944, the CCC has been selling cotton for export at 4 cents below the average domestic price on ten spot markets. So long as foreign cotton of comparable grades is offered for export in quantities insufficient to meet the demand at American prices, the world market price tends toward the CCC figure. The price will not move above that level, since the CCC is ready to sell any quantity at the announced price. The supplies of United States cotton are for all practical purposes unlimited, so that a lowering of the price at which the United States is prepared to sell will lower export prices everywhere. At any price lower than that required to clear the market without resort to United States cotton, the announced price of the CCC becomes the world market price

If the object of a central authority is to cause as little market dislocation as possible in disposing of surplus stocks, the best procedure would seem to be to announce at regular intervals a price at which unlimited quantities will be sold. A fixed price would prove less disturbing to the market than either the

regular sale of fixed quantities or the sale at irregular intervals of quantities determined by the disposal authority The regular sale of fixed quantities would contribute nothing to price stability, and the irregular sale of undeterminate quantities—whenever the market is "right"—might introduce an unsettling speculative element. It is, of course, imperative that the authority be consistent and unswerving in its disposal policy.

If the commodity in surplus does not deteriorate in storage, the authority may keep the price in check merely by selling or withholding from sale. There is always a danger that the primary purpose, the disposal of surplus stocks, may be lost sight of if too great attention is paid to price stabilization, although good management may succeed in keeping prices stable while still disposing of stocks. In any case, if purchases are ruled out, there is little likelihood that stocks will increase.

If, however, the stock cannot be stored indefinitely but must be turned over, it greatly complicates management's problem. The quantity and timing of purchase as well as of sale are then at the discretion of the authority. Not only does the opportunity for influencing the market become much greater, but also the possibility of sacrificing surplus disposal to stabilization aims. Under these circumstances the surplus can become a full-fledged buffer stock and may be operated accordingly. How much discretion surplus disposal authorities should be permitted in the stabilizing of prices is a question that must be answered after a further examination of buffer-stock operations In particular, we shall want to see whether such operations are practicable in the absence of export and production controls.

A buffer stock could be a useful adjunct to any quota scheme that effectively controlled either the trend of output or the quantity of export supplies available. The buffer stock might help not only to stabilize prices but to avoid drastic changes in quotas. With output (or exports) planned, the buffer stock's function would be to even out demand fluctuations and un-

predictable crop variations above or below the planned level.

If the buffer-stock management stood ready to buy or sell at an announced price or within a narrow price range, random day-to-day price variations would be very slight These variations reflect the impact of a changing rate of use on inadequate stocks or the speculative anticipation of changes in volume of supplies or in rate of consumption. The buffer stock of tin did nothing to eliminate these day-to-day fluctuations, because the Tin Committee did not stand continuously ready to sell at an announced price. The tin stock was accumulated and disbursed in order to check major price swings, although the quantities in reserve were always inadequate for this purpose. Tin prices, therefore, were quite as volatile under control as they had been without it.

A commodity stock large enough to have a countercyclical influence would be ample to minimize the effect of day-to-day demand variations or of speculative purchases or sales The management, however, would need to be ready always to buy or sell at, or near, the level of day-to-day prices. Random price variations, while they serve no useful purpose, cannot be said to hamper very extensively the functioning of the economy, particularly if producers and users of the commodity are served by an adequate futures market Therefore, any contribution made by buffer-stock operations to the cushioning of day-to-day price changes would be of very minor importance.

Purely seasonal fluctuations in raw material prices are so slight as to deserve no particular mention For certain crops, however, harvest variations can be very great, and their effect on prices catastrophic. Coffee is probably the most extreme example among important agricultural commodities, and a whole succession of good or bad harvests is not unusual The concentration of coffee raising in one geographical area, moreover, accentuates the effect on world supplies. For most of the other major agricultural commodities in international trade, production is more widely distributed and harvest

variations are not so great; annual world production of wheat or sugar, for example, is relatively much more stable. To counteract the influence on prices of uneven coffee crops would require a buffer stock of very large dimensions, perhaps the equivalent of one year's consumption. For most agricultural commodities, however, buffer-stock purchases or sales in much smaller quantities could compensate for harvest variations.

Raw material prices are most powerfully affected either by cyclical variations in consumption or by longer-run shifts in the level of costs or the structure of uses. For basic foodstuffs, even cyclical variations in consumption are small. For wheat, in fact, an ever-normal granary would probably need to do no more than balance the normal range of harvest variation in order to perform the necessary price-stabilizing influence, but other agricultural commodities, particularly sugar, and fats and oils, which have industrial uses, show a greater cyclical variation in consumption. Irrespective of long-run structural change, however, the magnitude of price fluctuations in basic foodstuffs is due less to any sharp alteration in the rate of production or consumption than to a low price elasticity of demand by virtue of which relatively small changes in these rates will produce large changes in price. Since—except for coffee—production and consumption of most foodstuffs are relatively stable, buffer stocks of modest proportions could make a definite contribution to price stability.

Agricultural commodities having important industrial uses, like rubber, cotton and wool, show a considerably greater cyclical variation in consumption; buffer stocks, to exercise a counter-cyclical price-stabilizing function, would therefore have to be proportionately larger. Even for these commodities, however, a buffer stock accumulated on the downswing and disposed of on the upswing, and attaining at its maximum 50 per cent of average annual world production or consumption, could exercise a considerable stabilizing influence

The raw materials that exhibit the greatest cyclical changes

in consumption are chiefly minerals and metals. Although prices are also variable, this instability is mitigated by monopoly control of output and by the periodic entry and exit of a considerable volume of high-cost production. Price maintenance in depression would involve the maintenance of a much higher than customary volume of output, and the magnitude of the accumulated stocks would be correspondingly large. Although the stabilization of minerals and metals production over the cycle would be of unquestionable advantage both to the economy of mineral extraction and to stability in the economy as a whole, its cost in financing and storage would be large indeed, and the benefits accrued might tend to be concentrated unduly in a few hands.

There is a distinction, fundamental to public policy in the field of commodity agreements, between worker-owner industries characteristic of agriculture, and the highly concentrated ownership and control fairly typical of mineral extraction and metal production Since there exist, for minerals and metals, monopoly organizations capable, through price and wage control, of siphoning off a substantial part of the benefits of public action, buffer-stock operations financed by public funds can probably not be justified.

Buffer-stock operations that distribute the benefits of stabilized prices widely and yet do not involve excessive storage or handling costs can contribute appreciably to a smoother functioning of the economy. The benefit though does not lie, as agricultural interests so frequently claim, in any direct influence on the real income of the economy as a whole, since what producers gain in higher incomes consumers lose in higher prices. The benefit may lie in (1) averting restrictive programs that might otherwise be introduced to mitigate price declines and (2) the advantages to ordered production and production planning that come from stable price expectations. To the author's knowledge, none of the extensive literature on "price flexibility" has ever demonstrated that cyclical fluctuations in raw material prices serve any useful purpose.

On the contrary, speculation on a further decline in prices on the downswing and on a further rise in prices on the upswing clearly augment the strength of deflationary and inflationary forces.

A price change properly reflects a fairly permanent change in consumers' preference or in costs of production. The fundamental economic problem in buffer-stock operations is to differentiate between these long-run price changes and those which would sooner or later be corrected by the opposite action of market forces, and to effect this short-period price compensation sooner rather than later. The fundamental political problem is to devise an institutional framework that will safeguard buffer-stock management from the pressure of interested groups.

Both problems are in large part solved for buffer-stock management if the stock is set up within the framework of a workable quota scheme. Management will then not have to concern itself with the effect of buffer-stock price policy on the volume of production (or the supplies offered for export) since these will be subject to control. Essentially the job becomes one of minimizing fluctuations around a given level (or trend) of prices. Determination of the proper level is the responsibility of the control authority; if a selected level cannot, in the long run, be maintained, the need for quota changes is indicated. We are not now concerned with the question of whether production or export quotas take equal account of consumer and producer interests. The only point to be made here is that if the quotas are adequate to insure the consistent maintenance of a level or trend of prices, buffer-stock operations can be limited to the control of price changes which the market would in time reverse.

If the buffer stock is of sufficient size, these price variations can be compensated without quota changes. One of the dangers, however, to effective buffer-stock operations lies in the possibility that the control authority will attempt to counteract any variations by changes in the quota while holding the

stock to small dimensions. Not only do frequent changes in quotas adversely affect the economy of production and the stability of workers' incomes, but a quota change is of little use in protecting prices against short-run market variations A change in quota must necessarily be effective for a considerable period of time, and even then may overshoot the mark. In the history of tin control, for example, quota reductions so closely followed every downward shift in sales that any ensuing increase in demand shot prices up before an upward revision of the quota could make itself felt. There appears to be no reason, however, why an authority less interested than the Tin Control in the realization of maximum immediate profits could not successfully use buffer stocks to effect considerable stabilization of prices and quotas.

A buffer stock operated outside the framework of a quota scheme, however, represents a much more complex problem. In this case not only is the management faced with difficult decisions as to the desired level or structure of prices (while lacking any control over supply responses to this level), but the pressure of producers for higher prices impinges directly on its purchase and selling operations instead of on adjustment of the quota.

Should buffer-stock operations be undertaken for commodities suffering from chronic overproduction, there is a strong probability that any price level calculated consistently to move current output either into consumption channels or into buffer-stock storage either would be too low to be politically tolerable or too high to prevent a persistent overaccumulation of stocks. The argument against quota controls is so strong that there arises an understandable temptation to use storage schemes, even when the object is to raise a price level rather than to minimize fluctuations about a given level. A buffer stock does not interfere, as quotas do, with ordinary market transactions. Dealers are free to buy from and sell to whomever they like and in whatever quantities. Unlike quota schemes, a buffer stock does not tend to prevent production from moving from high-cost to low-cost sources; nor need buffer-stock

operations prevent the level of prices from being influenced by changes in consumers' tastes or in methods of production. If, however, a buffer stock is used to prop up a sagging price level, it will soon lose any capacity it might have to stabilize prices, even over the long run. Under conditions of chronic overproduction, a buffer stock can function adequately only as an adjunct to a quota scheme.

If buffer-stock operations (divorced from quota control) were limited to commodities not subject to chronic overproduction, it would first be necessary to maintain a proper price level and then make appropriate changes in it to meet fundamental alterations in demand or supply conditions. If the aim of buffer-stock management were to hold price fluctuations within 10 per cent either way of a basic level, the stock would purchase when the price fell below that level and stand ready to make unlimited purchases at the 90 per cent limit [1] If price rose above the basic level, the management would sell and stand ready to make unlimited sales whenever the price reached 110 per cent. Error in the choice of price level would presumably show up either in an accumulation of excess stock or in a deficiency large enough to prevent the management from performing its proper compensatory functions. A buffer stock of this sort could not be operated on a rule-of-thumb basis. Clearly, managerial discretion would have to be not only informed but unhampered. Such an operation, however, should not require extraordinary competence, but to be fully successful it *would* require that the management be protected from the pressure of producers.

[1] It is not suggested that a limitation of price fluctuation to 10 per cent either way from a basic level or trend of prices is a proper buffer-stock objective for all commodities, or even for any particular one. A statement of objectives must take into account the suppply and demand characteristics of a group of interrelated commodities (such as the various grades and lengths of cotton) and of the structure of markets for these commodities. Price fluctuations held within limits substantially wider than plus or minus 10 per cent could still represent an approach to relative stability for many raw materials. It would probably be wise, in any case, for a buffer-stock management to start with modest objectives and feel its way gradually toward a more effective policy of price stabilization

Neither the history of storage schemes nor reflection on the superior organization of producers' as against consumers' interests entitles us to much confidence on the latter score Judging by past performance we should expect that the basic price level would be set too high, that any downward revision would be opposed, that the permissible limits to the size of the buffer stock would be continually expanded and that obstacles would be put in the way of liquidating accumulated holdings. These would appear to be the inevitable consequences of any buffer scheme in which storage costs are borne by groups outside the industry, so that producers suffer no penalty for the accumulation of excessive stocks. If the malady affecting a particular commodity is not chronic overproduction but price instability, the industry itself can and should be made to bear the cost of any storage plan designed to lessen this instability. Unless the cost burden can be assessed by a tax on output or by other means, buffering operations are in grave danger of foundering on the rock of excess accumulation of stocks.

However, now that the war is over, it will not be a matter of deciding, with respect to certain commodities, whether to accumulate or not to accumulate a stock. The stock will be there, mainly in government hands, and the immediate task will be to dispose of it without demoralizing the market. Even if authorities are given a straight disposal problem, with no necessity to turn over stock through concurrent purchase and sale, price considerations are certain to influence the timing and volume of sales. Since producers will bear no part of the cost of holding stocks, they may be expected to press for an indefinite withholding from sale. In such circumstances, as we have already warned, the primary disposal objective can easily be obscured beneath the ostensibly secondary aim of price stabilization. Short of requiring the authority to dispose of a definite quantity of the commodity per annum, it would seem advisable to limit his discretion rather narrowly in order to isolate him as far as possible from producers' pressure

C QUOTA SCHEMES

The principal control device of an international commodity agreement is the import or export quota, which may or may not be accompanied by control of production in the participating countries. If the agreement is designed to divide an import market among various exporters, quotas policed by the country of import are customarily used. Thus, Great Britain assigned beef quotas to its principal suppliers in the international beef agreement; the United States has enforced coffee import quotas under the international coffee agreement, and contributed the fixing of import quotas to the sugar agreement. So long as the consuming country is willing to enforce these quotas, no producing country can sell more than the amount agreed upon. As yet, however, no commodity agreement aimed at the limitation of total world exports has relied upon import quotas as the central control device [1]

When the commodity agreement has as its main purposes the maintenance of world prices and the sharing of world markets, it is the exporting countries that customarily bear the responsibility for controlling supplies through the imposition of export quotas. If the exports of all participants are marketed through a single sales agency, there need be no question of preference in a given market for exports from a particular area. If, on the other hand, each exporting country has its own channels of distribution and normal markets, these will probably enter into any calculation of established quotas.[2]

[1] The Draft Wheat Convention, however, provides that "the contracting government of each importing country shall not permit the importation into its territories of wheat or flour shipped from that exporting country [where quota has been filled] during the current quota year more than seven days after the date of the Chairman's declaration [that the quota has been filled]" Article IV, Sec. 10 U S. *Department of State Bulletin*, Vol. VII, No. 158 (July 4, 1942), pp 582–591.

[2] The Draft Wheat Convention provides "in principle that . . . wheat from each exporting country should continue to find its way into its normal market." Article IV, Sec. 1. Presumably, this means that exporting countries will be limited to their "normal markets" unless it is impossible to fill their quotas by exports to such markets.

Can Quota Schemes Work?

Before we attempt to evaluate the desirability of quota control as compared with other possible courses of action (or inaction), it will be necessary to raise some preliminary questions: Can exports be controlled by quotas? Are export quotas enforceable by the participants to the agreement? Can control of exports be maintained without control of production?

International restrictive agreements, both public and private, have shown a tendency, disconcerting to their protagonists, to break down under stress. Although intergovernmental agreements have exhibited greater durability than private cartel arrangements, and although progress has been made over the last decade in learning how to make these arrangements work, it is by no means clear that export controls can be applied to all the commodities for which such devices are advocated.

A quota scheme relies first of all on an understanding among the participants that they will not depart from either the export limits or price level specified in the agreement. The participants, however, inevitably have unequal interests in the agreement and its maintenance. Low-cost producers, reluctant to participate, may have been convinced only by the pressure of immediate market conditions. As conditions improve, these producers may come to feel that unrestricted competition will assure them larger exports than have been assigned them under a quota system. An unexpectedly large harvest yield may often create pressure for an expansion of exports.

The fact that an international commodity agreement must frequently be loosely drawn, in order to win the adherence of reluctant members, itself facilitates disunion. The 1933 International Wheat Agreement, embracing 22 countries, broke down when Argentina, faced with an unexpectedly large harvest for which adequate storage was lacking, exceeded her quota.[1] However, in the case of the present Draft Wheat

[1] *Cf* Joseph S Davis, *New International Wheat Agreements* (Wheat Studies of the Food Research Institute) (Vol XIX, No 2), Stanford University Press, Stan-

Convention, the continued threat of an export subsidy by at least one of the members may enforce adherence to the agreement if it finally goes into effect.

Even if the principal exporters of the world were to unite on a quota plan they could all support, exports from sources outside the agreement could, in the course of time, wreck the project. The nefarious operations of "outsiders" receive extended attention in cartel literature, and they may be expected to constitute just as much of a threat to any restrictive intergovernmental agreement. Early control schemes in sugar and rubber were wrecked by outside competition; Brazil has seen its foreign market for coffee, and the United States its foreign market for cotton, cut by the competion of other suppliers, and even the Tea Control, which perhaps of all the international commodity authorities has pursued the most moderate price policy, has not been able to prevent diversion of a share of the world market to the unregulated production of China, Japan, Formosa and Indo-China.[1]

Previous experience has demonstrated the absolute necessity for including all principal sources of supply and for avoiding any postwar agreements that might be subjected to extensive outside competition. Yet the difficulties of bringing *all* exporting countries into an agreement cannot be overlooked.

The tin agreement achieved its exceedingly strong position only by generous concessions to unwilling participants at the expense of the original members, and it clearly recognizes the danger from outside competitors in a provision permitting any signatory to withdraw from the agreement if and when the production of tin in territories outside the scheme exceeds 15

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ford University, Calif, 1942, p. 26. The Argentine representatives "plausibly argued that the North American producers had already failed to fulfill the badly-worded commitments to contract their wheat acreage for 1934 "

[1] V. D Wickizer, *Tea Under International Regulation* (Commodity Policy Study, No 4) (Food Research Institute), Stanford University Press, Stanford University, Calif, 1944. In this case (*cf.* Chap IX) the inferior production methods of outsiders has made their competition less dangerous

per cent of total world production.[1] It is possible that the proposed International Trade Organization, forming a part of the United Nations organization, may succeed in consummating commodity agreements that will include all significant exporters and importers, but in all commodity agreements now existing and under negotiation the effective control of exports is jeopardized constantly by the competition of nonparticipating producers.[2]

Another kind of outside competition can be expected with the emergence of synthetic substitutes and, for most metals and some agriculturally produced industrial materials, with the reclamation of used material and of scrap. The proposed cotton agreement, even though it should include all the important raw-cotton-producing countries, may still founder on the shoal of competition from synthetic fibers. In most metals, scrap collection is not only highly competitive but readily responsive to changes in price. These two factors will seriously affect any price policy that might be set up by an authority controlling supplies of the virgin metal.

Unless it makes provision for existing and potential outside competition, an export control scheme is bound to break down as so many have in the past; and if it does make such provision, it may severely circumscribe the limits within which the control authority can operate. Commodities entering world trade show an enormous disparity in their adaptability to export control. At one extreme is tin. Here a number of special conditions all favor effective control. the limitation of

[1] *Cf* Tin Producer's Association, *International Tin Control and Buffer Stocks*, p 17.

[2] The Draft Wheat Convention contains, in veiled language, a threat of concerted action against recalcitrant outsiders *Cf* Article IV,

> The contracting governments recognize that international trade in wheat should be distributed on a fair and equitable basis among all countries which export wheat and they agree that the effective operation of the Agreement should not be impaired by abnormal exports from countries that have not acceded to it Accordingly, the contracting governments shall cooperate in taking, on the advice of the Council, such practicable measures as may be necessary to attain this end.

known reserves and their location in a relatively few areas, the high degree of concentration in tin mining, the financial integration of smelting and mining interests, the relative consumer indifference to high prices, the meager competition of reclaimed tin and the lack of close substitutes. As the London *Economist* puts it, "If there was ever a branch of production offering exceptional opportunity for intelligent planning it is the tin industry."[1]

At the other extreme are some of the basic agricultural commodities, for which international control is planned or pending. In those, cultivation is widely distributed geographically and easily expanded, production within a country is difficult to control, consumers and importing countries take an active interest in the price of the commodity, and synthetic substitutes compete with the natural product. A wheat agreement that only exercises control over the exports of the four principal exporting countries—Australia, Canada, Argentina and the United States—will be constantly endangered by the competition of outside producers. Agreements covering sugar, coffee, cotton and rubber will each be confronted by great, though different, obstacles in bringing world exports under control tight enough to accomplish their specific purposes.

Assuming for the moment that complete control over exports is possible, can it be maintained without some control over production? If production is not controlled in one or more of the countries party to the agreement, there is always the possibility that accumulating surplus stocks will furnish an incentive to break away from the agreement. The obligation to limit exports might, of course, be fulfilled in other ways, as, for example, through destruction of stocks, through low-price domestic consumption, by two-price plans, by the expansion of local processing facilities or by various alternative methods, but sudden increases in consumption are not easy to bring about, and the destruction of stocks is expensive.

[1] "The Tin Control," *London Economist*, Mar. 23, 1935 Cited in Knorr, *op cit*, p 99

Obviously, then, an export quota scheme without adequate production control is likely to break down under stress. Commodities, however, are as dissimilar in their adaptability to production controls as countries in their willingness and capacity to impose them. The first tin agreement obligated the participating governments to limit production "so that it shall correspond as closely as possible throughout the year to their export quotas,"[1] and tin production, with a two- or three-month lag, seems to have closely followed changes in export quotas. Under this scheme all the tin producers in the member countries were assigned a standard tonnage. Over-all control of production within the limits of the agreement was, however, definitely facilitated by the relatively small number of tin producers, the very slight change from year to year in their identity and the possibility of close control of output within each producing unit.

These conditions differ markedly from those characterizing the production of most agricultural commodities. Here the chief control instruments are modification of permitted acreage, limitations on new planting, various type of subsidy payment and, as a last resort, the ploughing under of unharvested, or the destruction of harvested, crops. None of these can be described as either delicate or sensitive.

A limitation on the planting of coffee or rubber trees or tea bushes will have an effect only after the lapse of years. Curtailment of acreage has a way, as experience in the United States has shown, of increasing the yield per acre. The usefulness of subsidies depends on what is subsidized and how; if the particular crop subsidy is a part of a larger system of agricultural control, the possibilities are infinite. Adjustment of incentives within such a system can certainly encourage a reduction in output of certain crops and increases in others,

[1] Knorr, *op. cit.*, p 110. Article 18 of the third tin agreement permits production for stock up to 25 per cent of the standard tonnage, which permitted a substantial divergence between production and export Production remained, however, definitely under control.

but these directives, subject to the decision of hundreds of thousands of farmers and to natural variations in crop conditions, do not constitute a very sensitive instrument for the control of output.

At best, these devices to limit agricultural production can check an expansion of average annual yields or bring about their slow contraction. If, however, an adequate storage plan can be set up as a buffer against unforeseen variations in demand and supply, nothing more may be necessary to supplement an export quota scheme. But this much is necessary. Without some control over output, export quotas are in danger of collapsing under the pressure of continually expanding stocks.

The rubber agreement appears to have come closer to complete production control than any other international undertaking in an agricultural commodity. But here again, as in the case of tin, there were factors facilitating control. About half of all rubber production was concentrated in large-scale plantations, and most of the remainder was produced by natives who could be—and were—required to conform to the over-all decisions. In the case of tea, an unusually stable rate both of consumption and production makes possible a satisfactory market adjustment with no need for controls beyond a limitation of new planting and an alteration in the size of stocks held off the export market.[1] Production controls for wheat and cotton, however, are much less easily imposed. The Draft Wheat Agreement, in addition to establishing export quotas, minimum and maximum export prices, and specific limitations on stocks held in the participating countries, commits the member countries to the adoption of "suitable measures to insure that the production of wheat in their territories does not exceed the quantity needed for domestic requirements and the basic export quotas and maximum

[1] As Wickizer points out (*op. cit*, Chap IX) the tea industry was not over-expanded and most of the cultivation within the control of the scheme is on large plantations under scientific methods, which makes for stability of yield

reserve stocks."[1] However, neither Canada nor the United States, the two principal exporting countries that have experimented most extensively with control measures, can be said to have had much success in restricting wheat output. It remains to be seen whether an international agreement to limit exports and regulate stocks can provide a more effective incentive for production control than was the expanding surplus of the war and prewar years.

Acreage control in the United States has been most successfully applied to cotton. Yet little has been done, even under the exceptionally favorable conditions created by the war, to move resources out of cotton culture. The principal cotton-exporting countries outside the United States—Brazil, India and Egypt—have had little experience with production control and manifest no desire to attempt it It is therefore highly doubtful whether the proposed international cotton agreement can satisfactorily limit cotton production, even though the persistence of surplus stocks overhanging the market is certain to jeopardize the continuance of effective export controls.

Enough has been said to justify a legitimate doubt as to the workability, under certain circumstances, of international quota schemes. This was the question to be answered in this section. The workability of international commodity controls is sufficiently doubtful to warrant extreme skepticism regarding the hopes of international planners that a comprehensive commodity organization that will adjust raw material supplies to prospective demand is in the offing.

Are Quota Schemes Desirable?

The argument against quota controls is so strong that only the lack of practicable alternatives would seem to justify their use. Briefly, the arguments against are that quota control will freeze exports in existing channels and production in existing

[1] Draft Wheat Agreement, Article II

locations, that controls are necessarily producer-dominated and yield prices satisfactory only to producers' interests, and that the very existence of controls, when effective, is enough to prevent or postpone any positive measures for shifting resources out of the overexpanded or high-cost area. Nor is it difficult to document these charges from the history of commodity agreements.

A quota scheme invariably allocates export quotas with reference to some base period. The bargaining position of the participants determines the base, and in its determination the ability to produce at a low cost is only a minor consideration. Once fixed, quotas tend to remain fixed, regardless of changes that may have taken place in cost relationships. High-cost sources will always be allotted a quota if only because it is necessary to include all important sources in the agreement. Thus not only is high-cost production encouraged, when otherwise it would certainly be eliminated, but the expansion of low-cost production is discouraged by discriminatory quotas. A favored phrase for this rigid allocation of exports is "orderly marketing," but, as Davis remarks, "if nature happens to give Argentina a large crop and Canada a small one, true 'orderly marketing' would call for enlarged exports from Argentina and reduced exports from Canada."[1]

Quota allocation by intergovernmental agreement is generally less responsive to changing market forces than private cartel allocation, since the capacity of governments to resist a quota reduction is customarily much greater than that of a private enterprise Furthermore, because cartel agreements are more unstable, recurring inroads of competition tend to alter quotas in favor of low-cost producers when the agreement is renewed. Speaking of tin, Rowe observes:

> If the tin scheme were a private agreement between the producers, one might reasonably expect the low-cost producers of Malaya and the Dutch government (as the virtual owner of the tin industry of the N E I) to insist on the maintenance of a reasonably

[1] Davis, *op cit*, p 61.

low-price level so as to insure the least possible measure of friction, and to break away from the scheme as conditions become more favorable, thus allowing *laissez-faire* to rid the industry of its high-cost surplus capacity As it is, there seems small chance of any such event especially in view of the presence of relatively high-cost as well as low-cost producers within the British Empire.[1]

It was pointed out earlier that the antecedents of intergovernmental commodity agreements are frequently private cartel arrangements or national valorization schemes. Producer interests that are controlling in the original undertakings are usually carried over pretty much intact into the succeeding agreements. If surpluses and chronic overproduction are to be avoided, the restriction of supply in order to maintain or raise prices has a certain justification. But producers are usually not the best judges of how much restriction or price raising is compatible with a broad consideration of public interests. This objection is customarily met with the reply that proper concern for these broader interests will be assured by adequate consumer representation in commodity controls. Whether this claim is altogether warranted will be seen from a brief examination of the history of consumer representation in commodity control schemes.

In the case of intergovernmental quota schemes initiated and enforced by importing countries, it must be assumed that the consumer interests of the members are taken into account The British market for imported beef is divided by agreement between Britain and her principal suppliers, and the agreement is enforced by means of import quotas. The British were interested in protecting domestic producers and in assuring Empire producers of an export market without unduly raising the price to consumers. Rather than impose a tariff that would have adversely affected consumers, Britain entered into an arrangement that assigned quotas to the principal exporters and at the same time subsidized her domestic

[1] Index, *Svenska Handelsbanken*, April, 1935, cited in Eugene Staley, *Raw Materials in Peace and War*, Council on Foreign Relations, New York, 1937, p 109.

producers.[1] The scheme obviously tends to perpetuate high-cost production and to freeze exports in certain channels, but just as obviously it has not been imposed on consumers by exporting countries interested in maximizing the price of beef.

The United States has similarly made itself responsible for enforcing an agreement to divide the American market among Latin American producers of coffee. Although political considerations rather than consumer prices furnished the motive and although in the first few years the price of coffee was fixed at a generous level, more recently the American government, using the machinery of the coffee agreement, has resisted the pressure of exporting interests for an upward revision of price. Since, in later years, quotas were set at so high a level that exports were practically unrestricted, the chances are that channels of trade in coffee have not been appreciably altered. In any case the coffee agreement cannot be said to represent producer exploitation of consumer interests.

At the opposite extreme from these import-quota agreements are the controls on rubber and tin. No provision was made at the outset for consumer representation, but criticism of the rubber agreement at the World Monetary and Economic Conference of 1933 and an outcry against the price policy of the tin control in 1934 led at least to remedial gestures. The rubber agreement admitted three advisers or observers representing the processing interests of the three principal rubber-consuming countries: the United States, Great Britain and Germany. The 1938 agreement doubled the number of American advisers, but these two observers, without vote, attended by no means all the meetings of the International Rubber Regulation Committee. Such influence as they were able to exert appears to have consisted chiefly in calling attention to the limited alternative sources of supply.

[1] *Cf.* J. D Black and Stanley S. Tsou, "International Commodity Arrangements," *Quarterly Journal of Economics*, Vol LVIII, No. 4 (August, 1944), p 528.

Leading tire manufacturers were themselves the owners of rubber plantations in the East Indies, Liberia and elsewhere. The processing industry, furthermore, customarily carried several months' supply of crude rubber as inventory, and the annual yield of reprocessed rubber was always capable of considerable expansion. Consequently, rubber manufacturers were able to point out that the monopoly of the participants was not complete. Recognition of this fact, combined with previous "unfortunate" reactions to unjustifiable price increases, tended to produce what may be called a rational monopoly policy having due regard for the demand situation If the rubber agreement is eventually revived, the position of the United States should be greatly strengthened by virtue of its synthetic capacity.

The Tin Control's concession to consumer representation was even less satisfactory. Although the first tin agreement was modified to permit the inclusion of tin advisers representing the United States and Great Britain, the two leading tin-consuming countries, and although this modification was confirmed in later agreements, these gentlemen were not invited to advise on questions of production or price.[1] In the drama unfolded by the Tin Control, the role of the consumers' representative was that of the muffled drum, decidedly off stage.

Between these extremes of import-dominated and export-dominated quota schemes fall most of the other important commodity agreements Since tea is mainly consumed as well as produced within the political area covered by the tea

[1] In the apologetic of the Tin Producers' Association, (*International Tin Control and Buffer Stocks*, p 13) it is reported that

> The Committee soon appreciated the importance of the help which such [consumers'] representatives could give and at a meeting of the International Tin Committee held on August 13, 1934, it was unanimously decided that a panel representing the chief consuming countries should be invited to attend the Committee meetings at which any subjects directly concerning the interests of consumers were under discussion

[Apparently consumers have no direct interest in prices or production]

agreement, exploitation of consumer interests would probably not be tolerated even if it were practicable. Tea prices have, in fact, remained both stable and moderate under control. In the sugar agreement, 17 per cent of the votes have been cast by the United States and 17 per cent by Great Britain, both heavy sugar importers whose influence has, in general, favored the expansion of exports from low-cost areas.[1] For the enforcement of restrictive provisions, the sugar agreement, as well as the Draft Wheat Convention, depends to a considerable extent upon the policing of quotas by importing countries. Both the Draft Wheat Convention and the proposed cotton agreement will, it is expected, be open to importing as well as exporting countries

The effectiveness of an importing country's representation in a commodity control scheme would seem to depend largely on whether that country's cooperation is necessary to the success of the scheme. If importing countries must enforce the quotas, or if they can make their own supply arrangements with large-scale exporters, then their cooperation is definitely necessary These conditions can be said to apply to almost all the major agricultural products traded internationally and to many if not most of the metals. Tin alone is an exception, for not only are import quotas unnecessary to the enforcement of controls, but the principal consumer has no effective access to tin sources outside the agreement.

It must be emphasized, however, that representation of consumer *countries* is not representation of consumer *interests*. Direct representation of ultimate consumers is presumably out of the question, and even such remote concern for consumer well-being as is manifest in the public representation of an importing country can usually be related to other considerations. Great Britain's interest in the beef agreement is attributable as much (and perhaps more) to her concern for

[1] Yates, *op. cit*, p 64 "In respect of fair representation of importers as well as exporters the Sugar Council has been a model of propriety among all the prewar commodity schemes"

domestic and Empire producers as to a regard for her consumers. Although American interest in the coffee agreement has by now been mainly converted to protection of consumer interests, it was at first almost exclusively one of national defense. Nevertheless, there is always a greater likelihood that consumers will fare better from the operations of a control scheme in which importing countries are effectively represented.

Restriction of exports and raising of prices are not necessarily contrary to long-run consumer interests, although ideally the price should be stabilized at a level no higher than is required continuously to yield adequate supplies of the commodity under regulation. Even though consumers might temporarily be benefited by the lower prices associated with chronic overproduction, it could probably be shown that their broader interest in preserving political and economic stability would justify a higher regulated price. To say this is merely to recognize that conditions of production, extraction or export that do adequate justice to all interests concerned may be more closely approximated by public action than by the unregulated forces of the market.[1]

It can scarcely be said, however, that this justification can be claimed for international commodity controls as they have functioned in the past. In many agreements, decisions as to proper output and proper price have been made exclusively by and in the interests of producers, and, in all, quota allocations have protected high-cost sources without regard to changing demand and supply conditions. Possibilities for a substantial revision of commodity controls, perhaps under the

[1] *Cf.* Watkins, *op. cit.*, p 231.

Notwithstanding all the manifold difficulties standing in the way of an exact assessment of costs and a nice determination of values, practical exigencies constrain us to recognize that there is in respect of every specific supply problem a scale of adequacy For each raw material there is a rate of supply in the matrix between the ever-receding past and the oncoming future which is 'most convenient' all around A supply that falls short of, or exceeds, that rate exacts sacrifices of some interests that outweigh the benefits conferred upon others

aegis of an International Trade Organization, will be discussed in the next chapter.

A commodity agreement that does no more than allocate shares in an existing volume of trade will have no effect whatever on the surplus capacity that presumably occasioned the agreement. Since one way of removing or lessening a surplus is to expand consumption, most commodity agreement pays at least lip service to this objective, and some have actually accomplished considerable market expansion through reduction of trade barriers. The Brussels Sugar Convention of 1902 is notable in this respect and well worth emulating. If trade barriers are to be effectively reduced, however, importing countries must be treated as full partners, but this would run counter to the producer orientation of most agreements. Consumption may also be expanded by the discovery of new uses for a commodity, and the international commodity control can frequently sponsor the necessary research and experimentation. The Tin Control has been particularly energetic in developing new lines, although whether its efforts to increase consumption counterbalanced the effects of its high-price policy is an open question.

Granted that commodity agreements have not done so much as could be done to expand consumption, there are a number of raw material industries in which, even with maximum consumption, there would still be serious over-capacity. In these industries resources will have to be converted to other uses if restriction of output is to be avoided or at least limited in duration. A shift of resources, however, lies outside the capacity of single-industry planning, since it necessitates provision of employment opportunities elsewhere in the economy.

It can therefore be argued against commodity controls that, by temporarily alleviating the distress of producers, they tend to postpone or otherwise prevent the inauguration of policies looking toward economic expansion through trade-barrier reduction, industrialization or other forms of publicly fostered economic development. There is enough force in this argu-

ment to warrant making the proof of adequate provision for a shift of resources a condition to the approval of a commodity control scheme.

Despite the strength of the argument against quota schemes, can they not perform a justifiable function in alleviating post-war surpluses pending the application of more enlightened policies? The critics of commodity control look toward either a drastic clearing away of the barriers to trade and to private enterprise (on the implicit assumption that a return to the dynamic and flexible capitalism of the late nineteenth century—if it can be managed—will solve the problems of distressed areas) or a national and international public and publicly encouraged investment program that, by stepping up the rate of industrial expansion, would shift resources out of these areas. It does not seem to the author that either prospect is sufficiently near realization to justify ignoring the question of how, for an indeterminate period, the incomes of some groups of raw material producers may be maintained, pending transfer of underemployed resources out of particular areas.

Certain of the raw material industries that suffer from chronic overproduction are important to international trade; unless the scaling down of exports and production can be accomplished by international agreement, there will be an irresistible tendency to shift the burden of surplus disposal to other shoulders by unilateral action. By tariffs or other means, net importers will protect their domestic production against low-priced imports. Exporting countries will rely on their financial strength to maintain domestic prices and to retain or increase their share in the foreign market by export subsidy. Economically undeveloped countries, whose supply of foreign exchange is dependent on the export of one or a few raw materials produced in surplus, will be forced to limit imports by exchange control and other means.

The pattern of the 1930's can be repeated, and it may be, unless energetic measures are taken to avoid it. One policy of

prevention lies in negotiating intergovernmental restrictive agreements for those commodities whose persistent surpluses may, without benefit of agreement, compel unilateral action even less conducive to the desired expansion of international trade and economic activity.

VIII. AMERICAN RAW MATERIAL INTERESTS AND COMMODITY POLICY

A THE GROWING IMPORTANCE OF COMMODITY PROBLEMS AND POLICY

BEFORE the war United States foreign economic policy was not oriented along commodity lines. Sporadic governmental intervention to help secure or protect oil concessions, or to adjust disputes concerning American oil investments abroad, had given us the beginnings of a foreign oil policy. Domestic agricultural policy of the 1930's succeeded in pricing traditional American exports out of the foreign market, and by 1938 had resorted to export subsidies in an attempt to preserve, primarily for wheat and cotton, what was left of this market. American dependence on imports of certain commodities controlled by foreign monopolies, notably tin and rubber, excited Congressional investigation but produced no positive action. Finally, prospective shortages of various strategic materials led, immediately before the war, to the rubber-cotton barter agreement and to the stockpiling, on a very small scale, of a few materials. Our general commercial policy was not, however, markedly influenced by the particular problems of specific commodities

The war and a continued high-price domestic policy for agriculture have changed, and will change, this situation rather drastically. The end of the period of war-induced scarcities will leave us with large stocks of—and excess productive capacity for—aluminum, magnesium, rubber, nitrates, copper and some other industrial materials A national policy for these commodities will have to be developed with due regard for what is done about similar surpluses in other countries. War requirements and dwindling American resources have brought sharply to the fore the relation of specific com-

modities to national security. To safeguard our access to these materials, it may be necessary to embark on a program that will include, all or severally, stockpiling, the expansion and protection of American holdings abroad, the development of substitutes and the conservation of domestic sources. In such a situation, international collaboration may be required to avert a competitive scramble for scarce resources.

Our high-price policy for agriculture has brought a use of export subsidies that can only be regarded by other countries as an instrument of economic warfare. Simultaneously, our government has pressed, and is pressing, for international commodity agreements as a way of assuring our export position for wheat and cotton. It is impossible, however, to protect our market position for these commodities unless, by participating in control schemes, we help other countries to protect their position in other commodities. Thus is our foreign economic policy developing along commodity lines.

A national policy with respect to a particular commodity can be formulated without international consultation, and international consultation can be undertaken without consummation of a restrictive commodity agreement Commodity policy, therefore, covers a much broader field than the international commodity controls on which this study has focused attention

We shall have to develop a policy regarding the disposal of government-owned magnesium and aluminum plants, although this will probably not involve us in international negotiations, much less in restrictive intergovernmental agreements. How we dispose of or operate our synthetic-rubber plants, however, will have a foreign influence of such magnitude, and over such far-flung areas, that we cannot afford to ignore the possible consequences. Our oil policy, similarly, cannot be pursued in an international vacuum. National policy affecting these commodities and perhaps a very few other nonagricultural materials such as, possibly, nitrates and copper, should be formulated only after careful consultation with other interested countries. If the problems involved

are recurrent, these consultations should probably be organized in the form of a so-called study group. Finally, the prospects of chronic overproduction of some raw materials justify further concerted action, perhaps in the form of quota schemes with or without a provision for buffer stocks.

It seems probable that the main lines of United States commercial policy will be worked out in collaboration with other nations, using the various international organizations already established or in process of formation. The process will then be one of give and take, and the environment will be one in which considerations of political stability and international security will strongly color the solutions of economic problems. In this setting, the influence of the United States will be strong but not paramount.

Granted that we have an immediate interest not only in liberalizing foreign trade but preserving private trading opportunities and institutions, and that we also have reason to support international organizations designed to adjust and reconcile the conflicting interests and intentions of a large number of participating countries, what considerations should govern our commercial policy in general and our commodity policy in particular? Two that need to be examined before we can answer this question are: the export-import position of the United States with respect to raw materials and the bearing of our domestic agricultural policy on the whole commodity field.

B THE AMERICAN TRADE INTEREST IN COMMODITY AGREEMENTS

Our postwar imports, not only of raw materials likely to be subject to control but of all raw materials, will in all probability greatly exceed our exports. Even at a very low level of national income, our raw material imports are larger than our exports, and this excess tends to increase rapidly with a rise in national income; at levels possible with full employment, the excess of raw material imports over exports might be in the neighborhood of $750 million to $1 billion per

annum. U.S. Department of Commerce figures on the prewar foreign trade of the United States in raw materials and unprocessed foodstuffs are given below. For purposes of comparison, the Department of Commerce estimates of national income at market prices are also shown.

UNITED STATES FOREIGN TRADE IN RAW MATERIALS AND NATIONAL INCOME
(Trade in millions and national income in billions of dollars)

Year	*Imports*	*Exports*	*Import balance*	*National income*
1934	715	712	3	49 5
1935	904	742	162	55 7
1936	1082	726	356	64 9
1937	1384	827	557	71 5
1938	836	843	–7	64 2
1939	1036	639	397	70 8
1940	1296	530	766	77 8

Even in 1934, a year of very low income, raw material imports were slightly in excess of exports. The drop in imports in 1938 is explained by the large inventory accumulation of raw materials in 1937, a year of relatively high business activity followed by a sharp recession. Between 1934 and 1937, when national income rose by slightly more than $20 billions, imports of raw materials and unprocessed foodstuffs increased by more than $600 million. Thus for every billion dollars of added income, raw material imports increased by $30 million. Although data for later years indicate that these figures somewhat overstate the relationship, it appears that on the average a $25 million increase in imports of raw materials and unprocessed foodstuffs may be expected to accompany a billion dollar increase in national income.

A high level of industrial production absorbs large quantities not only of imported but also of domestic raw materials, much of which would otherwise seek export markets. If the relationship between raw material imports and national income is projected to a full employment level, then a national

Certain commodities of which we are importers will continue to be controlled by international agreement, regardless of any attitude the United States may take. In all probability this will be true of tin and tea. Rubber, the largest of our prewar raw material imports, will now be in a very different position, since the United States, if it so desired, could achieve practical self-sufficiency. Our participation in the sugar agreement will presumably protect any consumer interests we wish to protect. There are, however, a number of other raw materials of which the United States will be an important importer, and many of these are minerals and metals that are susceptible to international control. Whether they will in fact be controlled will depend to a considerable extent on the American attitude toward commodity agreements.

The only commodities for which international control is pending and of which the United States is on balance an exporter are wheat and cotton. Domestic consumption of cotton responds readily to changes in national income, and in 1942 reached the phenomenal figure of 11.6 million bales, exhausting mill capacity. Since then, labor shortages have caused a recession from this figure.

Although a substantial part of the 1942 total represented industrial consumption of cotton for war purposes, it must also be remembered that civilian demand was sharply checked by regulation. Under conditions of full employment a projected civilian consumption of 10 to 11 million bales seems not exaggerated. Since the average annual crop during the 1930's was only slightly over 12 million bales, this rate of consumption, if maintained, would leave an exportable surplus of not more than 2 million bales. These figures, however, do not tell the full story. Cotton production was controlled during the 1930's and there is no way of estimating what quantity of cotton American farmers will want to produce, or be allowed to produce, henceforth. Maintenance of a full-employment rate of consumption, moreover, is an excessively optimistic premise. The fact remains, however, that our

export interest in cotton varies inversely with the size of our national income.

This does not apply to wheat, but here our recent and prospective export interest is relatively slight. The consumption of wheat as food does not respond to changes in the national income From 1934 to 1937, for example, national income increased by about 40 per cent, while consumption of wheat as food increased from 463 to 472 million bushels, a rise of less than 3 per cent. While wheat exports in the 1930's, which include the drought-years, are misleading as a gauge of future prospects, a postwar annual export of 100 million bushels would be large. Wheat does not constitute a very important fraction of our international trade interests.

One may question, therefore, whether American export interests in cotton and wheat are large enough to justify the promotion of restrictive agreements for these commodities, if their promotion would require us to initiate a reciprocal series for commodities which, on balance, the United States imports Other considerations, it is true, enter into the shaping of any policy on international commodity agreements, but it should be borne in mind that America's interest in raw material imports is greater and, under reasonably prosperous conditions, very much greater, than our interest in exports.

C. AMERICAN AGRICULTURAL POLICY AND COMMODITY AGREEMENTS

In determining our attitude toward international commodity control, a factor of some importance will be the effect of domestic agricultural policy on the prices and output of American farm products. It is not the function of this report either to forecast or to recommend policy in the field of domestic agriculture. An admirable study of this subject, by T. W. Schultz, has already appeared under the auspices of the Committee for Economic Development.[1] It is clear, however, that our present agricultural policy is in serious conflict

[1] Schultz, *op cit*

with our announced aims in the field of international trade and, if continued, may eventually commit us to a permanent program of export subsidy or to active participation in restrictive commodity agreements, or to both. If Professor Schultz's principal recommendations concerning the maintenance of farm income and forward pricing were to become policy, the present conflict would be in large part removed. From the standpoint of American foreign interests, this development would be highly desirable, but whether these recommendations are politically practicable, or whether they would be considered desirable public policy, we are not equipped to say. The following analysis, therefore, will be limited to a consideration of the implications of our present agricultural program—and of a suggested alternative—for our foreign trade, with particular reference to commodity controls.

Before 1939 our agricultural policy, except as it affected cotton, had little influence on our foreign trade. With cotton the sole exception, the acreage limitations of the AAA did not succeed in reducing output or materially increasing prices. The loan rates of the Commodity Credit Corporation, which tended to become, in effect, minimum prices did not, save for cotton, seriously overprice farm products until 1939 and 1940. However, the effect of acreage allotments and nonrecourse loans on cotton prices was pronounced; American cotton was progressively priced out of the foreign market while excess stocks were accumulated by the CCC. In the two years immediately preceding our entry into the war, the overpricing of other farm products by nonrecourse loans led also to the accumulation of excessive stocks. After 1941, war demands, together with the consumption of wheat for feed, saved the CCC from further disastrous stock accumulation.

The focus of the agricultural program shifted in 1941 away from acreage allotments to minimum prices as the principal instrument for controlling output. Prices were supported by CCC nonrecourse loans, whose rates, announced in advance of planting, became a useful device for stimulating the output of

many crops needed to meet wartime demands. The rates were percentages of obsolete parity prices, and as demand recedes from wartime levels a continued attempt to support these prices will leave them far out of line not only with world market prices but with domestic price relationships as well.

By the end of the war, the price-support program had been extended to cover most farm products, and legislation had been enacted for many crops for two years after the January first following Presidential determination that the war-emergency period is over Not only was price support made mandatory for basic commodities (cotton, wheat, corn, tobacco, rice and peanuts) at 90 per cent of parity (92 5 per cent in the case of cotton), but for other commodities whose expansion of output was determined by the Secretary of Agriculture, under the Steagall Amendment, to be required for war purposes. Although the resources of the U.S Department of Agriculture may not be adequate to maintain the prices of all these commodities at 90 per cent of parity against declining demand, the effect of the program will certainly be to price most farm products out of the foreign market.

Difficulties encountered in selling cotton abroad led to the use of export subsidies in 1939 and again in 1942, and in the Surplus Property Act of 1944 Congress authorized the Commodity Credit Corporation to sell abroad "at competitive world prices, any farm commodity or product thereof."[1] Cotton is already being exported at 4 cents less than the domestic price, and there is every prospect that this differential will have to be increased. Wheat and flour have also been subsidized for export. To avoid the piling up of stocks as rehabilitation demands slacken, the export of other commodities will have to be subsidized. The continuation of a policy of supporting domestic agricultural prices at high levels means, of course, that a two-price plan is inevitable, unless we are prepared to forego our traditional export markets for farm products.

[1] Public Law 457, 78th Congress, Sec 21, p c

The use of export subsidies, however, accords ill with our professed aims in the field of commercial policy and has frequently been the source of considerable embarrassment to our representatives in international economic negotiations. It is difficult to make other countries see the wisdom of reducing trade barriers and abandoning various beggar-my-neighbor policies, when the United States continues to push its agricultural exports by the very means it overtly condemns.

Legislative authorization of sales abroad at competitive prices constitutes both a threat to the export of other countries that may thus be forced to enter into market-sharing agreements with the United States, and an inducement to this government to seek such agreements as a means of limiting export subsidies and to avoid retaliatory measures. The initiative for both the Draft Wheat Convention and the proposed cotton agreement was supplied largely by this country, and, although a sharing of the foreign market can hardly do away with export subsidies so long as we maintain a policy of high domestic prices, it would presumably limit both the extent of the subsidy and the volume of subsidized exports. A marketing agreement might also check any tendency toward commercial retaliation that an unlimited subsidization would almost certainly provoke.

Our current agricultural policy, then, can be used as a weighty argument for a program of international commodity agreements, and people in government circles who favor the former are likely to be strong advocates of such agreements. Unfortunately, we shall probably not be able to induce other countries, either by threat or persuasion, to cooperate in controls affecting our agricultural exports unless we cooperate in controlling other commodities which we largely import. The larger aspects of commodity and commercial policy, however, tend usually to be subordinated to interests inside and outside the government that seek to maintain both high domestic prices and an export market for agricultural commodities.

The support of farm incomes—instead of farm prices—by

compensatory payments or some other type of government grant would go far toward eliminating the need for restrictive international commodity controls created by lifting domestic prices far out of line with the world market. Nevertheless, even if American farm prices were allowed to fall to world market levels, while incomes were maintained, at least one chronic surplus, in cotton, would continue to plague American agriculture. Wheat, with prices at competitive levels, would probably be extensively used for feed, and, at a level permitting wheat to be substituted for corn, all the wheat we are likely to raise could be cleared from the market. A fats and oils surplus, in the United States or in the world, is likely to be of short duration if prosperous conditions can be maintained.

With respect to cotton, however, there are just too many resources employed. To sell all the cotton we are likely to produce and, in addition, to dispose over a period of time of excess stocks of 20 million bales, the world price would have to fall to a low level indeed. Until the economy of the South can be drastically oriented away from cotton culture, there will continue to be too much cotton produced in the United States and in the world. A pronounced fall in cotton prices would go far toward redressing the balance between consumption and production, particularly if a low price were accompanied by a high level of industrial production, but it would not go far enough.

Abandonment of our high-price policy in domestic agriculture would not, then, completely remove the impetus to international control of raw materials, though it would contribute somewhat to that end. It would, though, remove the incongruous spectacle of the United States waving aloft the cudgel of export bounties to coerce some countries into restrictive commodity agreements, while beckoning others toward the promised land of reduced trade barriers. It would reduce the role of commodity controls more nearly to that of managing unavoidable surpluses, instead of managing surpluses induced by national policy. Such a change in our agricultural program would greatly further that liberal commercial policy so

obviously in the interest of the United States both economically and politically, but an adequate examination of this sort of policy change, including its political feasibility, lies outside the scope of this study

D THE PROPER SCOPE AND CHARACTER OF COMMODITY AGREEMENTS

If the predominance of imports in our foreign raw materials trade militates against restrictive commodity agreements, while our domestic agricultural policy leads us to look on them with favor, so also does conflict appear between our broader economic and political interests in the postwar organization of world trade and our policy alternatives on international commodity controls. Decisions on policy must be influenced by a series of such considerations as that American predilections for multilateral trade conducted by private enterprise are opposed by the desire of certain groups for a greater measure of intergovernmental planning; that the existence of war-created surplus stocks and facilities poses problems not easy of solution by the unregulated processes of market adjustment; and that the continued prosperity of countries in which we have a political interest may require protective intervention. The United States, moreover, has taken the lead in establishing international institutions whose purpose is to reconcile conflicting economic interests by peaceful negotiation and adjustment. We may be said, therefore, to have a sufficiently vital interest in maintaining and strengthening this international machinery as to justify some measure of compromise with respect to our immediate economic objectives.

It has been the argument of the preceding chapters that under certain specified conditions the commercial policy of the United States should make provision for a limited number of intergovernmental quota schemes, designed to prevent raw material prices from falling to competitive levels, and that in conjunction with them buffer stocks can frequently exert a useful price-stabilizing influence. The questions that need

now to be considered are: what limits should be imposed on these controls; what conditions should they satisfy, and how may controls for a particular commodity be integrated with the larger framework of international economic organization?

Considerable attention has recently been given to these questions by members of executive departments of the United States government Their views, as they had developed prior to the technical discussions with representatives of the United Kingdom late in 1945, were presented on Apr. 5, 1945 by B F. Haley, then director of the Office of International Trade Policy in the U S Department of State, in a speech entitled, "United States Policy Regarding Commodity Agreements."[1] Following discussions with British representatives on a "technical level" the Department of State issued, on Dec 6, 1945, its *Proposals for the Expansion of World Trade and Employment* which contains, in Chap. V, proposals concerning intergovernmental commodity arrangements.[2] A comparison of the *Proposals* with Haley's statement indicates that no substantial modification of principle has resulted from the commercial policy discussions. In the following paragraphs, the argument regarding the proper scope and character of commodity agreements is developed point by point in comments on the Department of State *Proposals*.

The recommendations they contain are limited to primary commodities on the ground that production and trade in these commodities are subject to peculiar vicissitudes that "may have such widespread repercussions as to prejudice the prospect of the general policy of economic expansion."[3]

[1] Reprinted in *Proceedings of the Academy of Political Science*, Vol XXI, No. 3 (May, 1945)

[2] The *Proposals*, with which "the Government of the United Kingdom is in full agreement on all important points," have been transmitted to the governments of other countries as a basis for discussion in the proposed World Conference on Trade and Employment The text of Chap. V is printed at the end of this chapter.

[3] The provisions of Chap V are "not designed to cover international agreements relating to the protection of public morals, the protection of human, animal

Provision is made for the establishment of study groups to investigate alleged difficulties, and any country participating in the proposed International Trade Organization is entitled to ask for a group to make a study of a commodity in which it is "substantially interested." Although neither buffer stocks nor quota schemes are mentioned, it is made clear that "excess supplies" constitute the anticipated difficulty and that under certain circumstances commodity agreements involving restrictions on production and trade may be justified. The statement of objectives, however, regards such agreements as being transitional in character, and a set of complicated—and somewhat muddy—principles is proposed, of which one purpose is clearly to make the justification of commodity agreements difficult.

Members of the proposed International Trade Organization, moreover, are asked to adhere to certain conditions affecting the operation of commodity agreements. It is further stipulated that the ITO shall include a Commodity Commission that will study commodity problems, make recommendations to the ITO executive board, and review the operations of existing commodity agreements. The substance of the Department of State proposals, to which we now turn, is contained in the statement of "Objectives," "Principles," and the conditions governing the "Operation of Commodity Agreements."

If preferred measures for increasing the consumption of a commodity are inadequate to prevent a general surplus, an agreement involving restriction of production or trade may be justified

. . . to achieve the following objectives:

(*a*) To enable member countries to find solutions to particular

or plant life or health; the conservation of reserves of exhaustible natural resources; the control of international monopoly situations, or the equitable distribution of commodities in short supply " *Cf.* Paragraph 9. To this list of exceptions should be added agreements to undertake commodity sanctions against a potential aggressor, these sanctions, if undertaken, would presumably be administered by the Security Council of the United Nations.

commodity problems without resorting to unilateral action that tends to shift the burden of their problems to other countries

(*b*) To prevent or alleviate the serious economic problems which may arise when, owing to the difficulties of finding alternative employment, production adjustments cannot be effected by the free play of market forces as rapidly as the circumstances require.

(*c*) To provide a period of transition which will afford opportunities for the orderly solution of particular commodity problems by agreement between member governments upon a program of over-all economic adjustments designed to promote a shift of resources and manpower out of overexpanded industries into new and productive occupations.

As a statement of desirable objectives the above paragraphs are unexceptionable. It is recognized, and rightly, that, in the absence of international agreement, commodity surpluses may, under certain circumstances, lead to unilateral action more disruptive of trade than the restrictive agreement itself. The ultimate corrective, however, is seen to lie in shifting resources out of overexpanded industries by an expansion of opportunities elsewhere in the economy; a restrictive agreement is regarded only as a transitional measure.

One cannot forbear asking how long the transition is likely to last. The British Empire wool-disposal scheme contemplates 13 years as the period required to liquidate wool stocks. The world cotton surplus, in relation to annual consumption, is as large as the wool surplus. Is 13 years the proper transitional period to allow for cotton? If agricultural surpluses are really to be temporary a notable change will have to take place in domestic agricultural policy, not only in this country, but in some others. At the present writing no sign of such a change is discernible.

That a postwar control for rubber might be transitory is possible. Is the same also true for tin and for tea? The author wholeheartedly supports the statement of objectives proposed by the Department of State, fully recognizing their implications for domestic policy. A reader, however, might be par-

doned for wondering if and how these objectives are to be implemented by domestic legislation.

If the *Proposals* of the Department of State were accepted, countries belonging to the International Trade Organization would agree to certain "principles of intergovernmental commodity agreements" including a provision (paragraph 4, *b*, 2) obligating them to refrain from entering any such agreement until the proper authorities had determined the existence of a condition justifying a restrictive commodity agreement. The statement of conditions that would have to be satisfied seems to the author cloudy and, in a literal application, probably unworkable. Either one of two sets of conditions, which may be paraphrased as follows, has to be found.

1. (*a*) A burdensome surplus of a commodity exists in international trade; (*b*) it occasions widespread distress among small producers who account for a substantial proportion of the total output; (*c*) its adverse effects cannot be corrected by the normal play of competitive forces, because (*d*) both the supply of and the demand for the commodity are inelastic to price changes.

2. (*a*) Widespread unemployment, unrelated to general business conditions, has developed in an industry; (*b*) the situation cannot be corrected rapidly enough to prevent undue hardship to workers, because (and here the actual language must be quoted since the sense escapes the writer) "(i) a substantial reduction of price does not lead to a significant increase in consumption but leads, instead, to the reduction of employment,[1] and (ii) the resulting unemployment cannot be remedied by normal processes of reallocation."

This double set of conditions may be useful in suggesting to study groups the sort of data that need to be examined but it can hardly serve as an adequate statement of administrative standards. The juxtaposition of "surplus" and "small pro-

[1] This strange result no doubt could happen, given certain expenditure patterns and secondary effects, but it is difficult to see how economic research could trace the relevant lines of causation

ducers" in the first set indicates, probably, that the framers of these proposals had in mind agricultural commodities. The emphasis on "employment" in the second set presumably refers to nonagricultural raw materials, principally minerals and metals. The latter conditions seem particularly ambiguous and difficult of application.

The statement of principles also calls for a refusal to participate in commodity agreements prior to the "formation and adoption by members of a program of economic adjustment believed to be adequate to insure substantial progress toward solution of the problem within the time limits of the agreement"[1]

In Paragraph 6 it is proposed that commodity agreements should remain in effect initially for no more than five years. For most agricultural commodities, the problems that call for solution by restrictive agreements are the disposal of surplus stocks and the transfer of resources to other uses. The prerequisite of "substantial progress toward the solution" of these problems is eminently desirable as a condition of participation in restrictive commodity agreements. It is also a condition that no commodity agreement to date has met. If rigorously applied, it would probably prohibit the commodity agreements in which American agricultural groups have a principal interest.

Consider the case of cotton, with a surplus carry-over now somewhat in excess of 20 million bales. "Substantial progress toward a solution of this problem" might mean the disposal, over a five year period, of from 5 to 10 million bales. If the "program of economic adjustment" in cotton is to have any prospect of success, production must, during this period, run substantially below consumption. Yet at the present level and structure of world prices and under existing control policies, production will inevitably and persistently exceed consumption. To bring about the desired reversal of this trend would require either a drastic fall in price or a drastic curtailment of output, or, very probably, both. Whether cotton-producing

[1] *Op cit.*, Chap V, Paragraph 4, *b*, 3

countries outside the United States can or will systematically and effectively restrict production is open to doubt.

If the principles outlined above were vigorously pursued by an international cotton control their probable effect would be not only to lower world prices but to commit the United States to undertaking an extensive shift of resources out of cotton culture The United States has recognized the need for reallocating cotton production resources as its Number One agricultural problem for many years, without making any progress in this direction. It is therefore doubtful whether a domestic economic adjustment requiring curtailment of resources in cotton would be acceptable to the American government as a condition of adherence to a cotton agreement.

In these circumstances the practicable alternatives for the United States appear to be either a unilateral solution of its cotton problem or a less than rigorous application of the Department of State's "principles" applying to commodity agreements. In the author's opinion the only sensible policy for the United States to follow is to abandon price supports, to allow the price and output of cotton to be determined by competition in the world market, and, if necessary, to support the incomes of cotton producers while vigorously encouraging a shift of resources into other employment. However, reflection on the history of domestic agricultural policy leads inescapably to the conclusions that this country will seek an international cotton agreement and that the American negotiators will attempt to "rise above principles."

If the proposals of the Department of State are accepted, member governments, besides agreeing to refrain from participation in certain undesirable types of commodity agreement, will adhere to the following conditions governing the operations of agreements in which they participate:

a. The agreements should be open to accession by any member on terms not less favorable than those accorded to members parties thereto.

b The members adhering to such agreements which are largely

dependent for consumption on imports of the commodity involved should, in any determinations made relating to the regulation of prices, trade, stocks and production, have together a voice equal to those largely interested in obtaining export markets for their production.

c. The agreements should, when necessary, contain provisions for assuring the availability of supplies adequate at all times for world consumption requirements at reasonable prices.

d. The agreements should, with due regard to the transitional need for preventing serious economic and social dislocation, make appropriate provision to afford increasing opportunities for satisfying world requirements from sources from which such requirements can be supplied most effectively.

Condition *a* requires no special comment: that agreements be open to accession on equal terms is both desirable and practicable. With respect to *c*, most commodity agreements promise "adequate supplies" at "reasonable prices." The consummation of these purposes will depend mainly upon administration.

Although adequate consumer representation is generally desirable, as has been stressed throughout this report, it is not clear to the author that a rigid application of condition *b* is necessary to satisfy this requirement. If the British wool-disposal plan is brought under the control of the ITO, it is by no means certain that the functioning of the plan would be improved by an equal voting representation of net importing countries. It might actually make effective functioning more difficult. In this instance an adviser or observer might perhaps better meet the requirement of adequate consumer representation. Nor is it clear that an equal voice for net importers would improve the working of the International Tea Control. It seems desirable to recast this provision in language that will permit of alternative solutions.

Condition *d* is important but will be difficult to implement. The parties to a commodity agreement are not producers but governments that frequently represent the interests of both

high- and low-cost producers. The range of cotton-production costs in the United States is very wide; similarly, both high- and low-cost tin producers are to be found in the territory of the Malay States Furthermore, importing countries are not likely to be exclusively consumers of controlled commodities; usually there are domestic producing interests to consider, as Great Britain has considered hers in the beef agreement.

Even if high-cost production is concentrated in one or a few countries, it is difficult to reduce the export or expand the import quotas of these countries In comparison with the bargaining strength of high-cost producers in a private cartel arrangement, that of nations is likely to be much stronger. The Brussels Sugar Convention of 1902, however, achieved an extensive, if temporary, reduction of government aid to high-cost sugar production in favor of low-cost areas.

Concentrating attention on expansion of consumption in postwar agreements might at least increase the *share* of the total world market supplied by lost-cost producers even though the absolute quantities supplied by high-cost sources remained the same. Market-sharing schemes, however, are bound to be rigid, and it would be excessively optimistic to believe that they can be made responsive to the expanding opportunities of low-cost production merely through the acceptance by international agreement of a code of principles governing commodity agreements.

The authors of the Department of State *Proposals* concerning intergovernmental commodity arrangements appear to have had three main purposes in view: (1) to limit the number of commodity agreements by confining them to a very few basic raw material industries where persistent overproduction or unemployment occasion widespread distress, (2) to frame commodity agreements so that all interested countries and economic groups are adequately represented and (3) to treat commodity agreements as transitional measures valid only so long as is necessary to permit a transfer of resources out of the distressed areas.

If the proposals were adopted and effectively administered, not only would existing controls be thoroughly revised, but restrictive provisions would pass out of existence within a decade or so after the war. Countries adhering to a commodity agreement would have to commit themselves to a definite line of action on their domestic handling of the regulated commodities. Clearly, the present domestic agricultural policy of the United States is quite incompatible with participation in the proposed type of commodity agreement. Prewar British and Dutch commodity policies in Southeast Asia would also be unacceptable.

Should the *Proposals* be accepted, it seems probable that, among agricultural commodities, wool, cotton, sugar and possibly tea and rubber, might meet the conditions imposed, *if* the participating countries were willing to commit themselves to large changes in their domestic policies toward these commodities. Among nonagricultural commodities, possibly tin and nitrates might meet the tests suggested.

Proposals to limit commodity agreements to a few basic raw materials and to include, within the framework of such agreements, adequate measures for import-country representation seem to the author desirable and practicable. Equally desirable is a solution of raw material surplus problems that will permit placing a time limit on the restrictive provisions of commodity agreements. But whether this objective is as practicable as it is desirable remains to be seen.

To bring it about two steps are necessary: (1) a frontal attack will have to be made, in this country, on the policy of agricultural price supports and, in other countries, on similar policies that have the effect of limiting consumption and increasing production of raw materials already in excess supply; (2) in certain instances, national and international programs of public—or publicly encouraged—investment and industrialization will have to be undertaken to provide employment for resources now devoted to raw material production.

Although an international program of commodity control

may be integrated, at least partially, with a program of industrialization, the means necessary to accomplish this integration will have to receive considerably more attention than they have in the past. Only on the assumption that domestic commodity policies can be adapted to international requirements and that employment opportunities can be provided for displaced resources, is it practicable to treat restrictive commodity agreements as transitional arrangements. If these assumptions cannot be fulfilled, the international commodity agreement may have to be granted a longer lease on life than the Department of State *Proposals* contemplate.

E. THE RELATION OF INTERNATIONAL ECONOMIC ORGANIZATION TO COMMODITY CONTROL

Sufficient progress has been made toward formulating a program of international economic organization so that we can begin to see how an agency dealing with commodity problems might fit into the scheme. The charter of the United Nations organization stipulates that the work of all international organizations dealing with special economic problems, such as the Fund, the Bank, and the Food and Agriculture Organization shall in some wise be coordinated through the Social and Economic Council. If the Department of State *Proposals for Expansion of World Trade and Employment* are accepted, there will be included in the list of special agencies an International Trade Organization consisting of a Conference, an Executive Board, a secretariat, and three special commissions: a Commercial Policy Commission, a Commission on Business Practices and a Commodity Commission. In addition the Conference may create an Industrial and Mineral Unit to exercise the same informational functions on behalf of mineral and manufacturing industries that the FAO exercises on behalf of agriculture.

The main objective of the proposed International Trade Organization is the expansion of world trade. According to the analysis of the *Proposals:*

International Trade is kept small by four things: (1) Restrictions

imposed by governments; (2) restrictions imposed by private combines and cartels; (3) fear of disorder in the markets for certain primary commodities; (4) irregularity and the fear of irregularity in production and employment.[1]

The International Trade Organization would have the function of collecting and analyzing information, providing technical assistance and making recommendations to member governments. With respect to trade restrictions imposed by governments and by private combines and cartels, the function is clear and within the competence of the organization. If trade barriers can be substantially reduced and if member countries succeed in maintaining high-level domestic employment, a long step will have been taken toward lessening the volume of prospective raw material surpluses. In the language of the *Proposals:* "The best cure for any surplus is more money in the pockets of consumers. And general prosperity will make it easier for people caught by a particular failure of demand to shift to other lines where opportunities are better."[2]

If measures for increasing consumption are inadequate to reduce a particular raw material surplus, intergovernmental consultation is recommended. The International Trade Organization is suggested as the proper forum for such consultation, and it is further proposed that a Commodity Commission be created to advise the Conference and Executive Board of the Organization. The Commodity Commission is intended to be a fact-finding and consultative body set up primarily to establish the need for commodity action, to recommend suitable action to the Executive Board of the ITO and to oversee the operation of existing commodity controls.[3]

It is especially desirable that the Commodity Commission be subordinate to an international trade organization concerned principally with expanding world trade through reduction of

[1] *Proposals*, p. 2.

[2] *Op cit*, p. 5.

[3] *Ibid*, Sec. E.

trade barriers. In respect of this proviso the Department of State *Proposals* are superior to the recommendations of the International Labour Office *Report on Commodity Control Agreements*[1] and to those of the United Nations Conference on Food and Agriculture,[2] both of which make reference to an independent commodity organization.

Commodity planners are likely to be excessively concerned with the well-being of special groups to the exclusion of broader interests. An international commodity organization, if left unchecked by a superior agency devoted to liberalizing the conditions of international trade, would be prone to conceive its function as the promotion rather than the limitation of commodity agreements.

It is equally desirable that the organization responsible for commodity policy be closely linked with agencies responsible for investment, development and industrialization policies. The *Proposals* contemplate bringing the International Trade Organization "into relation" with the Social and Economic Council and with the other specialized international organizations. Until these relations are established, however, it is not possible to say whether commodity policy will or can be integrated with a broader program of economic expansion.

This report has repeatedly maintained that one-commodity regulation can accomplish little toward removing the chronic overproduction that has called such regulation into being.

1 *International Commodity Control Agreements* (International Labour Office Report), Montreal, 1942, pp XXVI, XXVII.

The constitution of a general international commodity control organization would seem essential Such an authority would be responsible for insuring that the general principles subscribed to by governments are respected in the individual agreements, and that the schemes for particular commodities are adequately coordinated *inter se* . . .

The broad effects of the introduction of such a general commodity control organization would be to make the schemes for particular commodities tools for the execution of a comprehensive policy framed as a part of the general programme of international economic and social development

2 Final Act of the United Nations Conference on Food and Agriculture, Sec XXV.

The remedy lies in expanding production elsewhere in the economy, and the direction of this expansion has an immediate bearing on commodity control. If restrictive commodity agreements are to be limited in number and in duration, the overriding objectives of commodity policy must be (1) expansion of world trade and (2) provision for alternative employment opportunities.

A good start has been made toward these objectives. There is, however, a great gap between the devising of international machinery and the implementing of particular policies by participating governments. To enable the machinery to function, it will be necessary to reshape not only commercial policy but policies hitherto considered as belonging to the field of domestic regulation, and such action as is proposed can only be taken with the cooperation of other governments and with due regard for their interests. The United States is vitally concerned both in the effective operation of the machinery of international collaboration and in the particular commercial policies that have been proposed. The question at issue now is, will the United States maintain such a high level of employment and take such steps to amend her domestic agricultural policy as will assure the functioning of the machinery and the implementation of the proposals that have been advanced?

U.S. DEPARTMENT OF STATE
PROPOSALS FOR EXPANSION OF WORLD
TRADE AND EMPLOYMENT

Intergovernmental Commodity Arrangements[1]

The production of, and trade in, primary commodities is exposed to certain difficulties different in character from those which generally exist in the case of manufactured goods, and these difficulties, if serious, may have such widespread repercussions as to prejudice the prospect of the general policy of economic expansion Members should therefore agree upon the procedure which should be adopted to deal with such difficulties.

1. *Special Commodity Studies.*
   a. Special studies should be made in accordance with the procedure set forth in *b*, below, of the position of particular commodities of which excess supplies exist or are threatened, to the end that, if possible, consumption may be increased and the anticipated difficulties may thereby be averted.
   b. Members substantially interested in the production or consumption of a particular commodity should be entitled, if they consider that special difficulties exist or are expected to arise regarding that commodity, to ask that a special study of that commodity be made, and the Organization, if it finds that these representations are well founded, should invite the members principally concerned in the production or consumption of that commodity to appoint representatives to a Study Group to make a special study of that commodity.

2 *Intergovernmental Commodity Conferences* If it is concluded, in the light of an investigation of the root causes of the problem, that measures for increasing the consumption of a commodity are unlikely to operate quickly enough to prevent excess supplies of the commodity from accumulating, the members may ask the Organization to convene an intergovernmental conference for the purpose of framing an intergovernmental commodity agreement for the commodity concerned.

3. *Objectives of Intergovernmental Commodity Agreements.* It should be recognized that intergovernmental commodity agreements in-

[1] This is Chap. V of the *Proposals.*

volving restrictions on production or trade would be justified in the circumstances stated in paragraph 2 above to achieve the following objectives:

a. To enable member countries to find solutions to particular commodity problems without resorting to unilateral action that tends to shift the burden of their problems to other countries.

b To prevent or alleviate the serious economic problems which may arise when, owing to the difficulties of finding alternative employment, production adjustments cannot be effected by the free play of market forces as rapidly as the circumstances require.

c. To provide a period of transition which will afford opportunities for the orderly solution of particular commodity problems by agreement between member governments upon a program of over-all economic adjustments designed to promote a shift of resources and manpower out of over-expanded industries into new and productive occupations.

4. *Principles of Intergovernmental Commodity Agreements.* Members should undertake to adhere to the following principles governing the institution of intergovernmental commodity agreements:

a. Members having an interest in the production or consumption of any commodity for which an intergovernmental commodity agreement is proposed should be entitled to participate in the consideration of the proposed agreement.

b. Members should undertake not to enter into intergovernmental commodity agreements involving the limitation of production or exports or the allocation of markets, except after:

1) Investigation by the Study Group of the root causes of the problem which gave rise to the proposal;

2) Determination, in accordance with procedures approved by the Organization, either:

a) that a burdensome surplus of the product concerned has developed or is developing in international trade and is accompanied by widespread distress to small producers accounting for a substantial proportion of the total output and that these conditions cannot be corrected by the normal play of competitive forces because, in the case of the product concerned, a sub-

stantial reduction of price leads neither to a significant increase in consumption nor to a significant decrease in production; or

b) that widespread unemployment, unrelated to general business conditions, has developed or is developing in respect of the industry concerned and that such unemployment cannot be corrected by the normal play of competitive forces rapidly enough to prevent widespread and undue hardship to workers because, in the case of the industry concerned, i) a substantial reduction of price does not lead to a significant increase in consumption but leads, instead, to the reduction of employment, and ii) the resulting unemployment cannot be remedied by normal processes of reallocation·

3) Formulation and adoption by members of a program of economic adjustment believed to be adequate to insure substantial progress toward solution of the problem within the time limits of the agreement.

c. Intergovernmental agreement involving the limitation of production or exports or the allocation of markets in respect of fabricated products should not be resorted to unless the Organization finds that exceptional circumstances justify such action. Such agreements should be subject to the principles set forth in this Chapter, and, in addition, to any other requirements which the Organization may establish.

5 *Operation of Commodity Agreements*. Members should undertake to adhere to the following principles governing the operation of intergovernmental commodity agreements:

a The agreements should be open to accession by any member on terms not less favorable than those accorded to members parties thereto.

b. The members adhering to such agreements which are largely dependent for consumption on imports of the commodity involved should, in any determinations made relating to the regulation of prices, trade, stocks, or production, have together a voice equal to those largely interested in obtaining export markets for their production.

c. The agreements should, when necessary, contain provisions for assuring the availability of supplies adequate at all times

for world consumption requirements at reasonable prices.

d. The agreements should, with due regard to the transitional need for preventing serious economic and social dislocation, make appropriate provision to afford increasing opportunities for satisfying world requirements from sources from which such requirements can be supplied most effectively.

6. *Termination and Renewal of Commodity Agreements.* Intergovernmental commodity agreements should not remain initially in effect for more than five years. The renewal of an agreement should be subject to the principles governing new agreements set forth in paragraph 4, above, and to the additional principle that either *a*) substantial progress toward a solution of the underlying problem shall have been accomplished during the initial period of the agreement or that *b*) the renewed agreement is so revised as to be effective for this purpose.

7 *Review of Commodity Agreements.* Members should undertake to transmit to the Organization, for review, intergovernmental commodity agreements in which they now participate or in which they propose to participate in the future. Members should also transmit to the Organization appropriate information regarding the formulation, provisions and operation of such agreements.

8 *Publicity.* Full publicity should be given to any commodity agreement proposed or concluded, to the statements of considerations and objectives advanced by the proposing members, to the operation of the agreements, and to the nature and development of measures adopted to correct the underlying situation which gave rise to the agreement.

9 *Exceptions.* The provisions of Chapter V are not designed to cover international agreements relating to the protection of human, animal or plant life or health; the conservation of reserves of exhaustible natural resources, the control of international monopoly situations, or the equitable distribution of commodities in short supply. However, such agreements should not be used to accomplish results inconsistent with the objectives of Chapter IV or Chapter V If any such agreement involves the restriction of production or of international trade, it should not be adopted unless authorized or provided for by a multilateral convention subscribed to by a substantial number of nations, or unless operated under the Organization.

A NOTE ON THE COMMITTEE FOR ECONOMIC DEVELOPMENT AND ITS RESEARCH PROGRAM

The Committee for Economic Development was organized in August, 1942, by a group of business leaders who were convinced that attainment and maintenance of high employment after the war could not and need not be left to chance. They foresaw an opportunity to achieve unprecedented peacetime prosperity if business were ready to swing rapidly to peacetime production at the war's end and the government were prepared with policies and measures that would assist the reconversion and contribute to subsequent high production.

Recognizing that this undertaking comprised two distinct though related sets of problems, the CED provided for two areas of action: (1) a Field Development Division to supply to businesses, large and small, in every part of the land, information and aid in planning peacetime production and employment; (2) a Research Division to study the economic problems of the immediate postwar transition years, as well as the basic long-range problems in maintaining high production and employment.

It was generally agreed in informed quarters that high-level employment at the close of the war would require civilian jobs for 7 to 10 million more workers than had been employed in 1940. This meant that business had to plan a postwar volume of business greater than any prior peacetime year—in fact, an over-all increase some 30 to 45 per cent above 1940.

Through the Field Development Division, nearly 3,000 county and community committees were established. More than 65,000 business men served as members of these committees, responsible for getting information concerning postwar markets and job requirements to the local manufacturer, merchant, and other businesses, and responsible, likewise, for

prodding the individual business man, hard driven though he was with war work, to lay plans for peacetime.

Tested procedures for making both production and employment plans were made available by the national CED office. Specialists in industrial management, in product design, in advertising and selling, and in training of sales personnel placed their skills at the service of all cooperating business men, without cost, through handbooks, films, training courses, business clinics, and forums for the local committees. An outstanding achievement of the Field Development Division was a postwar market analysis, carried out with the cooperation of leading industrial firms and trade associations, covering more than 500 finished-goods products. The findings of this two-year study were given business and the public in a report, *American Industry Looks Ahead*, issued in August, 1945.

How thoroughly and carefully the local work was done was evident when, at V-J Day, the CED was the only major organization to state that, contrary to prevailing opinion, there would not be a job slump immediately following the war. Its reports from business throughout the country indicated preparedness to move rapidly into peacetime production. Its wartime "plan jobs" assignment concluded, the Field Development Division was discontinued early in 1946.

Plans for high-level production and employment will not flourish long unless national policies prevail that make such plans feasible. To define what these national policies of government, business, and labor should be to encourage higher production and more jobs is the special task of the CED Research Division. This is the purpose of the research studies of which this volume is the thirteenth.

To the long-range economic questions involved in this undertaking were added the particular economic problems arising out of the war. The studies completed to date deal in great part with the economic problems of the transition from a war to a peace economy. The reports, as a group, seek to provide information and pragmatic recommendations concerning

problems intimately related to the future of our society, and, by the same token, to the life of each of us.

The authors of these reports have already won distinction in their own fields. Perhaps more important is the fact that they have demonstrated not only the competence but also the vigor of thought which these complex problems demand. Knowing, however, that the problems that would be scrutinized—demobilization of the war economy, taxation, monetary policy, international trade, agriculture, and the like—are not separate ones, but are integrated and must be studied in relationship one to the other, the CED has sought to make possible an exchange of information and views by the experts and, equally important, between the scholars and business men.

What may be a unique scheme of conferences was established, the objective being to blend the practical experience and judgment of the business world with the scholars' knowledge of the action of economic forces. A Research and Policy Committee consisting of representative successful business men was set up; to this group was added a Research Advisory Board whose members are recognized as among our leading social scientists; and finally, the persons who would be responsible for the individual reports were named, to comprise the Research Staff.

The subject matter of each report is threshed out by the members of these three groups, meeting together. The author of the report therefore has the benefit of criticism and suggestion by many other competent minds. He is able to follow closely the development of the reports on other economic matters that affect his own study.

No effort is made to arrive at absolute agreement. There is no single answer to the problems that are being studied. What is gained is agreement as to the determinative factors in each problem, and the possible results to be achieved by differing methods of handling the problem. The author of the report has full responsibility, and complete freedom, for pro-

posing whatever action or solution seems advisable to him. There is only one rule—the approach must be from the standpoint of the general welfare and not from that of any special economic or political group; the objective must be high production and high employment in a democratic society.

The author is free to present his own conclusions and does not speak for the Research and Policy Committee or for the Research Advisory Board. In turn, the Research and Policy Committee usually prepares its own statement of national policy. This may endorse all of the recommendations arrived at by the author, or it may disagree with some of them.

Implicit in the organization and support of the CED by business is the belief that leaders in each major group in our society will in future need to make every effort to appraise the policies and activities of that group as they relate to over-all national objectives and well-being. In the CED research program, a mechanism has been devised to permit responsible study by business men of business problems and to allow responsible proposals to be offered for national policies affecting business and the economy. Following three years of work whose merit has been applauded by government officials, labor leaders, economists and other social scientists, it does not seem too much to say that in the CED structure business has devised a useful tool for democracy.

The research studies already published or under way divide roughly into two parts:

A *The transition from war to peace:* the problems involved in the early *attainment* of high levels of employment and production;

B. *The longer-term fundamental problems* involved in the *maintenance* of high levels of productive employment after the transition period has passed.

The subjects covered by the individual monographs are:

A. *The Transition from War to Peace*

1. *The Liquidation of War Production*, by A D. H. Kaplan,

The Brookings Institution (already published). The problems involved in the cancellation of war contracts and the disposal of government-owned surplus supplies, plants, and capital equipment are weighed quantitatively as well as qualitatively. How much war plant has the government financed, and what part of it could be put into civilian production? What criteria should prevail in selecting the producers to be released first from war manufactures, as the war production program is curtailed? How and when should surplus goods be sold? Rapid resumption of peace-time production, with conditions favorable to high levels of employment, is the gauge by which the recommendations are measured.

2. *Demobilization of Wartime Economic Controls*, by John Maurice Clark, Professor of Economics, Columbia University (already published). When and how should the wartime controls be removed? The interdependency of the wartime controls of production, man power, prices, wages, rationing, credit policies, and others is made clear. How relaxation of each control may affect the peacetime economy—in terms of demand and supply, and therefore in terms of jobs and production levels—is weighed. The conditions that can be expected to prevail at different stages of the transition from a wartime to a peacetime economy are outlined, with emphasis on the variables with which we must be prepared to deal. Professor Clark does not overlook the significance of attitudes and objectives.
3. *Manpower Demobilization and Reemployment*, by Robert R. Nathan, Consulting Economist, and Emmett H. Welch, Chief, Economic Statistics Unit, Bureau of the Census. The relationship of demobilization policy to reemployment. Recommendations are made for a program that would avoid long-period joblessness among returning servicemen as well as war workers.

4. *Providing for Unemployed Workers in the Transition*, by Richard A. Lester, Associate Professor of Economics, Princeton University (already published). An estimate of the size and the duration of transition unemployment. The efficacy of public works employment, relief employment, the adequacy of unemployment compensation, wartime savings, dismissal pay, and the like are appraised. A program is developed to provide for the maintenance of workers who will be out of jobs in the transition from war to peace.
5. *Financing Business during the Transition*, by Charles C. Abbott, Associate Professor of Business Economics, Harvard University (already published). The sources upon which business has relied for its capital are examined, along with the current financial condition of large and small corporations. These two are weighed against the likely needs of financing by industry for reconversion and expansion in the transition years following the war.
6. *Jobs and Markets*, by Melvin G. de Chazeau, Albert G. Hart, Gardiner C. Means, Howard B Myers, Herbert Stein, and Theodore O. Yntema (already published). The problem of controlling aggregate demand in the several transition years during which the nation will endeavor to move from the high plateau of wartime production and employment to a similarly high level of peacetime productivity The deflationary elements as well as the current dangerous inflationary forces are examined. A program of fiscal, monetary, and price control policies is presented to speed civilian production and to prevent inflation and depression in the return to free markets.
7. *Monetary and Banking Policies in the Postwar Transition Period*, by John K. Langum, Vice-president, Federal Reserve Bank of Chicago. What monetary and banking policies can do to encourage production and

employment. Federal fiscal policy is analyzed in its relationship to the financial requirements of business in reconversion and expansion. The significance of monetary policies prior to the war and the money and banking conditions that will stem from war financing are reviewed. The relationship of business spending to other money flows and the resultant production pattern is discussed.

B. *The Longer-term Fundamental Problems:*

1. *Production, Jobs and Taxes*, by Harold M. Groves, Professor of Economics, University of Wisconsin (already published). A study of the federal tax structure as it affects the creation of jobs. A second volume, *Postwar Taxation and Economic Progress* (already published), concludes Professor Groves' analysis of the relationship of taxation to economic development, and presents an approach to taxation that would make for constructive tax policy. The second report inquires into the problems of state and local as well as federal taxation.
2. *Agriculture in an Unstable Economy*, by Theodore W. Schultz, Professor of Agricultural Economics, The University of Chicago (already published). An investigation going to the roots of the "farm problem." The significance of excess labor resources on farms, the failure of price mechanisms to induce shifts of resources out of agriculture, the differences between the farm and industrial sectors in responding to reduced demand. The importance to farmers of continued prosperity in business. A solution to the farm problem without resort to price floors or restrictions on output.
3. *International Trade and Domestic Employment*, by Calvin B. Hoover, Dean of the Graduate School of Arts and Sciences, Duke University (already published). An examination of the kind of foreign trade policies and

mechanisms we can adopt that will increase our gains from international trade and also contribute to world peace. A statement of the requirements in terms of the economies of other countries as well as our own.

4. *Controlling World Trade—Cartels and Commodity Agreements*, by Edward S. Mason, Professor of Economics, Harvard University (the present volume). The conditions that brought forth cartels and intergovernmental commodity agreements and the way in which both types of international business organization operate are presented as background to a searching appraisal of their role in the political-economic machinery of future world trade. American attitudes as well as American objectives in foreign trade are reviewed.
5. *Minimizing Business Fluctuations and Unemployment*, a major series of studies now under way dealing with the factors in an advanced industrial economy that affect the volume and pattern of demand, supply and employment. This series is by John Maurice Clark, Melvin de Chazeau, Albert G. Hart, Gardiner C. Means, Howard B. Myers, Herbert Stein, Theodore O. Yntema, and others to be appointed.
6. *The Special Problems of Small Business*, by A. D. H. Kaplan, The Brookings Institution, assisted by J. K. Wexman. An inquiry into the competitive position and the needs of small business.
7. *Providing Adequate Incentives for Enterprise*, by C. E. Griffin, Professor of Business Economics, University of Michigan.
8. *The "Billion Dollar Questions."* By Theodore O. Yntema, Gardiner C. Means, and Howard B. Myers. An economic primer posing the basic economic problems to be faced in a free enterprise system.

C. *Supplementary Papers:*

1. *The Economics of a Free Society*, by the Hon. William

Benton, Assistant Secretary of State. (Published in October, 1944, issue of *Fortune* Magazine)

2. *Personnel Problems of the Postwar Transition Period*, by Charles A. Myers, Assistant Professor of Industrial Relations, Massachusetts Institute of Technology (already published). An examination of the problems that will confront employers in connection with the rehiring of servicemen and war workers, and issues that will arise in the shift of the work force from wartime to peacetime production.
3. *Federal Tax Reform*, by Henry C. Simons, Associate Professor of Economics, The University of Chicago. The development of a basic philosophy of taxation to simplify the federal tax structure and distribute the tax burden among individuals in relation to their incomes.
4. *Incidence of Taxation*, by William Vickery, formerly Tax Research Division, Treasury Department.
5. *World Politics Faces Economics*, by Harold Lasswell, Professor of Law, Yale University (already published). A discussion of the interrelationship of economic and political factors shaping the world political structure, with particular reference to the future relations of the United States and Russia.
6. *Changes in Substantive Law, Legal Processes and Government Organization to Maintain Conditions Favorable to Competition*, by Corwin Edwards, Professor of Economics, Northwestern University.

These are the subjects so far authorized by the Research and Policy Committee. Others may be undertaken at a later date.

EXCERPTS FROM BY-LAWS OF THE COMMITTEE FOR ECONOMIC DEVELOPMENT CONCERNING THE RESEARCH PROGRAM

Section 3. Research and Policy Committee

It shall be the responsibility of the Research and Policy Committee to initiate studies into the principles of business

policy and of public policy which will foster the full contribution by industry and commerce in the post-war period to the attainment of high and secure standards of living for people in all walks of life through maximum employment and high productivity in the domestic economy. All research is to be thoroughly objective in character, and the approach in each instance is to be from the standpoint of the general welfare and not from that of any special political or economic group.

Publication

The determination of whether or not a study shall be published shall rest solely with the Research Director and the Research Advisory Board. . . . A copy of any manuscript reported for publication shall be submitted to each member of the Research Advisory Board, of the Research and Policy Committee, of the Board of Trustees, and to the Chairman and Vice-chairman of the Information Committee. For each subject to be so submitted the Research Director, after consulting with the Chairman of the Research Advisory Board, shall appoint a Reading Committee of three members of the Board. Thereupon, as a special assignment each member of the Reading Committee shall read the manuscript and within fifteen days from its assignment to him shall signify his approval or disapproval for publication. If two out of the three Reading Committee members signify their approval, the manuscript shall be published at the expense of the Corporation. . . . In no case shall publication necessarily constitute endorsement by the Committee for Economic Development, the Board of Trustees, the Research and Policy Committee, or the Research Advisory Board of the manuscript's conclusions. Upon approval for publication, the Research Director shall notify all members of the Research Advisory Board and no manuscript may be published until fifteen days following such notification. The interval is allowed for the receipt of any memorandum of comment, reservation, or dissent that any member of the Research Advisory Board may wish to express

Should a member of the Research Advisory Board so request, his memorandum of comment, reservation, or dissent, which must be signed, shall be published with the manuscript. Any signed comment, reservation, or dissent which the Research Director may wish to express or have expressed by others shall at his request be published with the manuscript. . . . In the event the manuscript is not approved for publication at the Corporation's expense as above provided, the individual or group making the research shall nevertheless have the right to publish the manuscript.

Supplementary Papers

The Research Director may recommend to the Editorial Board for publication as a Supplementary Paper any manuscript (other than a regular research report) . . . which in his opinion should be made publicly available because it constitutes an important contribution to the understanding of a problem on which research has been initiated by the Research and Policy Committee.

An Editorial Board for Supplementary Papers shall be established consisting of five members: The Research Director, two members from the Research and Policy Committee, and two members from the Research Advisory Board. The members from the Research and Policy Committee and the members from the Research Advisory Board shall be appointed by the respective chairmen of those bodies. The Research Director shall be the chairman of the Editorial Board and shall act as Editor of the Supplementary Papers. . . . If a majority of the members of the Editorial Board vote for publication, the manuscript shall be published as one of a series of Supplementary Papers, separate and distinct from the regular research reports. . . . Publication does not constitute endorsement of the author's statements by the Committee for Economic Development, by the Board of Trustees, by the Research and Policy Committee, or by the Research Advisory Board.

RESEARCH AND POLICY COMMITTEE

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